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FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

Tuesday April 12 1983

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Reporting against the odds in Moscow, Page 17

NEWS SUMMARY

GENERAL
Swiss defence on dioxin waste
The Swiss Government yesterday defended chemical company Hoffmann-La Roche against allegations that it had concealed information from West Germany about the whereabouts of toxic dioxin waste from Severo, Italy.
The Bonn Government seems to have accepted this view after initial reservations.
At the same time Swiss Interior Minister Alphonse Egli expressed doubts that Mannheim Italian had carried out its contract to dispose of the waste in another European country. The whereabouts of the 41 containers of waste is still not definitely known. Page 3

BUSINESS
BNOC's \$30 oil price 'accepted'
BRITISH National Oil Corporation said "an overwhelming majority of suppliers and customers" had accepted proposals for a \$30 a barrel reference price for North Sea crude oil from March 1. Page 18

America peace bid
Intense diplomatic activity is under way in European capitals to find a negotiated solution to the fighting in Central America. Page 7

Gulf war flares
Iran said it recaptured a large area of its territory in a new offensive in the war with Iraq. Iraq said it beat off most of the advance. Page 4

Oil slick, nears
Saudi King Fahd ordered the temporary shutdown of Al-Khobar desalination plant as a Gulf oil slick threatening eight states neared the Saudi coast. Page 4

Australian 'crisis'
Australians must tighten their belts to help the country through its worst economic crisis for 50 years, Prime Minister Bob Hawke said at the start of a national economic summit. Page 4

Corsica bombings
Homes owned by foreigners or people from mainland France were damaged when six bombs exploded in Gargese, southern Corsica. Page 3

10 held hostage
Ten West German oil prospectors at a camp in southern Algeria were being held hostage by Algerian workers demanding better conditions.

Falklands shooting
An Argentine prisoner of war hurt in an ammunition explosion in the Falklands war was shot by a British sergeant in a mercy killing, UK Defence Secretary Michael Heseltine said.

Threats to Kreisky
Several anonymous threats against Austrian Chancellor Bruno Kreisky's life have been made in recent weeks, his office said.

Greece 'not satisfied'
Greece said it was not fully satisfied with the EEC Commission's response to its request for a better deal from Community membership. Page 3

London paralysed
Central London was paralysed for three hours before an unexploded Second World War bomb dragged up from the River Thames was defused.

Briefly...
Solidarity trade union activist Edmund Baluka went on trial in Poland.
International conference on Marxism opened in East Berlin.
Seven died in factional fighting in a black squatters' camp outside Cape Town.
Greenland votes in parliamentary elections today.

Reagan bid to salvage peace plan

BY OUR FOREIGN STAFF
PRESIDENT RONALD REAGAN insisted yesterday that his Middle East peace initiative is not dead and claimed that King Hussein of Jordan is still "determined to push forward" with the U.S. plan, despite the King's public rejection of the plan on Sunday.
President Reagan's continuing confidence in his proposals was reinforced by telephone conversations with King Hussein and King Fahd of Saudi Arabia, the State Department said yesterday.
Meanwhile, Mr Francis Pym, the British Foreign Secretary, is due to fly to Jordan today to meet King Hussein, adding his own efforts to the attempts to salvage what remains of President Reagan's peace plan. Mr Pym, who is at the end of a Middle East tour, was in touch with Mr George Shultz, the U.S. Secretary of State, yesterday.

The State Department official spokesman said that the President came away from his conversations yesterday "with the impression that King Hussein and King Fahd are determined to pursue the process," which envisaged a joint PLO-Jordanian approach to negotiations with Israel.

But Administration officials appeared at a loss to suggest exactly how the peace process might go ahead.

The main governments concerned with the initiative, while bitterly disappointed that Jordan could not accept President Reagan's proposals, were yesterday stressing that King Hussein had carefully avoided rejecting them in the way that Israel did seven months ago.

Mr Shultz maintained yesterday that King Hussein had come "very close" to an agreement with the PLO on participation in the U.S. plan. According to Mr Shultz, the last-minute changes demanded by the PLO's "radical elements" for direct PLO representation in the talks and the creation of a Palestinian state on the West Bank of the Jordan, were "unacceptable" to both Israel and the U.S.

Mr Shultz, speaking in a television interview, said that he wanted to go to the Middle East to advance the peace process, but only "at the appropriate time" and the State Department said that there were no dates set either for a Shultz visit to the Middle East, or for visits by Middle East leaders to Washington.

In Jerusalem senior officials believe the failure of the Hussein-Ara-

Mauroy accedes to some Communist demands

By Paul Betts in Paris

A MAJOR political showdown between the ruling French Socialist Party and the Communist Party, its junior partner in government, was averted last night when the Communists fell into line and voted with the Government in a key economic debate in the National Assembly.
The Government had asked the French parliament to empower it to rush through on to the statute book the main components of its new austerity programme by decree law rather than the traditional, but far lengthier, parliamentary process.

The Socialists' Communist allies however, had threatened not to vote for the Government unless Mr Pierre Mauroy, the Prime Minister, agreed to amendments designed to reduce the burden of the new measures on lower income families.

A compromise was reached when the Prime Minister made concessions to the Communists yesterday, although he did not agree to all five amendments proposed by the smaller of the two left-wing French parties.

But the Communists appeared to have been satisfied by the compromise and agreed to vote for the Government, which includes four Communist ministers.

Mr Mauroy's compromise was set out in a letter released yesterday afternoon to the Communist and Socialist parliamentary groups in the National Assembly.

In essence, Mr Mauroy agreed to the Communist demands to exempt low income families from paying the new 1 per cent annual levy to help finance the country's social security system. He also agreed that some low income earners be exempted from contributing to the Government's new obligatory three year loan for all taxpayers.

After the letter was released, the Communists went into a meeting with their secretary, Mr Georges Marchais, to emerge later with the agreement to vote for the Government.

The Government thus gave another demonstration of flexibility yesterday by agreeing to compromise on some parts of its austerity package without, in fact, greatly modifying the overall essence and spirit of the tough new economic programme.

\$100m Eurobond for state agency, Page 28

Sterling and shares advance strongly in London

UK resists early cut in interest rates

BY MAX WILKINSON IN LONDON

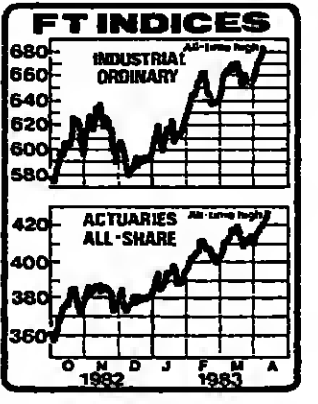
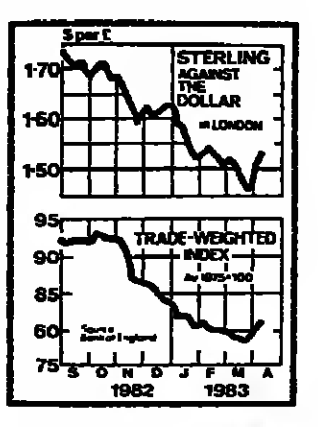
STERLING rose by 2 cents against the dollar in London yesterday as share prices set new records and government securities advanced strongly.

British financial markets seemed all set for a cut in base lending rates, but the Bank of England continued to resist the downward pressure by keeping a tight rein on the money market.

The central bank refused to accept bills offered to it at lower rates, and by holding its dealing rates unchanged, it kept the money market short of funds.

As a result the seven-day inter-bank rate rose to a percentage of a point to 10 1/2 per cent. However, the market expectations of a further fall in interest rates was so strong that all the longer term rates fell by about 1/4 of a percentage point and stock market prices continued to move up.

The FT industrial ordinary share index rose 8.9 points to 683.9 and longer-dated government securities gained up to 2 points compared with closing prices on Friday.



ing a cautious view of the likely rate of increase of the money supply after the provisional figures for March issued last week.

These showed that the three main definitions of the money supply

BTR tops £500m with Tilling offer

BY RAY MAUGHAN IN LONDON

BTR, the diversified British manufacturing group, yesterday followed its half-successful share raid on Thomas Tilling, the large UK industrial conglomerate, with a full bid for Tilling, which is valued at £576.4m (£876m) on a share exchange or £538.3m in cash.

In monetary terms, the proposed takeover is the largest ever mounted on the London Stock Exchange although the current value of the successful £378m bid which Grand Metropolitan launched for Watney Mann in November 1972 would be about £1.4bn.

Tilling shareholders are to be offered 18p in cash for each ordinary share or 10 BTR shares for every 21 Tilling shares. Taking BTR at 416p (ex-dividend) last night, down 9p, the projected equity deal values Tilling at 198p per share against the dawn raid price of 175p and a market price of 189p, plus 13p, at the close of trading last night.

The first £378.8m of the cash alternative was arranged yesterday

Sotheby's to fight U.S. bid

By Charles Batchelor in London

SOTHEBY'S, the London-based international fine arts auctioneer, is to fight the £61m (£93.1m) cash bid announced yesterday by General Field Industries/Knoll International, a privately owned U.S. manufacturer of carpet underlay and furniture.

The offer, which was immediately rejected by Sotheby's, comes less than four months after GFI/Knoll took a 14 per cent stake in the British company.

The bid announcement marked an abrupt change in tactics by the U.S. group, which originally claimed to be seeking only a minority shareholding and the opportunity to provide financial and management expertise to the hard-pressed auction house.

The strength of Sotheby's opposition indicated, however, that the

U.S. commission proposes new plan for MX missile bases

BY REGINALD DALE, U.S. EDITOR, IN WASHINGTON

PRESIDENT RONALD REAGAN'S special Commission on Strategic Forces yesterday unanimously proposed a simplified new basing system for the controversial MX intercontinental ballistic missile (ICBM) which it said should lead to the saving of billions of dollars from the U.S. defence budget over the next five years.

General Brent Scowcroft, the commission's chairman, said that the proposal represented part of "a major new departure" in which the future development of all U.S. strategic forces would be "integrated" with arms control so as to achieve stability between the superpowers.

Although major elements of the commission's recommendations have been rejected both by Congress and by President Reagan in the three-year-long search for an invulnerable MX basing system, Mr Reagan is expected to approve them in a major speech next week in the hope of finally resolving one of the major controversies that has plagued his strategic arms build up.

The commission is also confident

that Congress will now prove more receptive, finally allowing the MX programme to go ahead.

The report's main specific recommendations on ICBM's are

● A hundred 10-warhead, MX missiles should be deployed promptly in existing Minuteman silos to replace 100 older Minuteman and Titans now being decommissioned.

● Immediate development of a small single warhead mobile missile for deployment in the early 1990s, together with studies of hardened silo shelters and mobile launches as basing modes for it.

● A specific programme, to resolve the technical "uncertainties" about hardened silos and shelters as possible basing methods both for the MX in future and for the smaller missiles.

In other strategic areas, the commission called for, as a first priority, "vigorous programmes, to improve the ability of the President to command, control and communicate with the strategic forces" under conditions of severe stress or actual attack.

Continued on Page 18

Pearl Drums have moved to Milton Keynes.

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Aircraft and Air Services Survey Section IV

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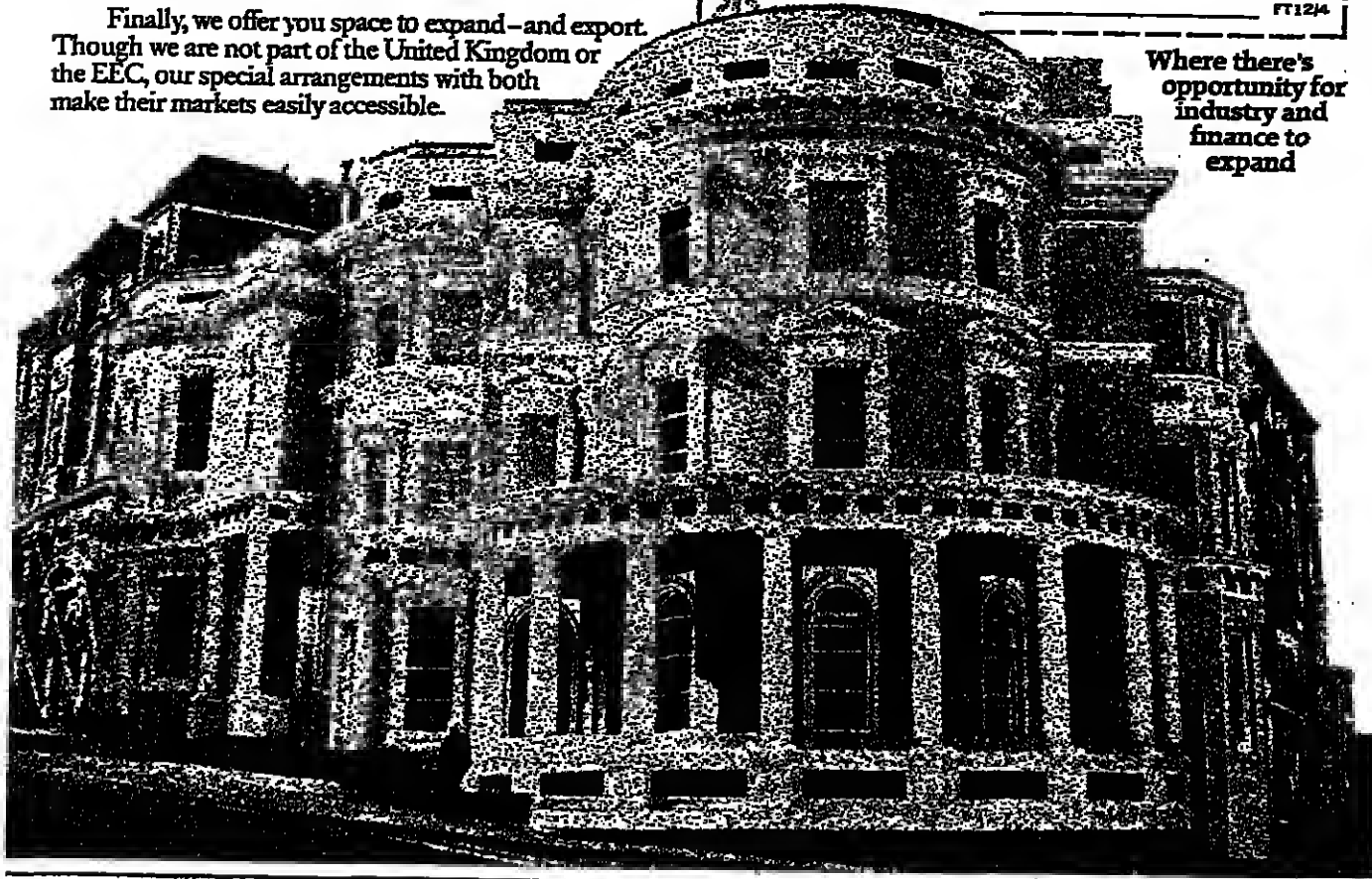
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EUROPEAN NEWS

David Marsh on a unique group in international debt rescheduling

The Paris way with basket cases

"DEBT RESCHEDULING is like divorce—it's become respectable," says a Paris diplomat who is spending an increasing amount of time in international talks on the debt problems of developing countries.

He is a member of a closely-knit group of officials from Western creditor nations which over the years has become known as the "Paris Club." They now meet as often as once a month in the French capital, with little fuss and minimal publicity, to stretch out loan repayments on inter-governmental debt for countries ranging from Poland to Zaire.

The group, linking Treasury and Foreign Ministry officials from about 15 or 16 industrial nations, has been meeting on and off in Paris for 27 years. In that time it has rescheduled debt totalling more than \$180bn.

Since the second oil shock of 1973-80, the club's pace of work has speeded up. Over the last six months debt packages have been worked out in rapid succession for Senegal, Uganda, Malawi, Romania, Costa Rica, Sudan and Cuba.

This week the club will focus on the problems of Togo and Romania is next on the list for May. Although each case is treated according to individual country criteria, officials close to the talks say a routine has developed. "It really is a club," one says. Officials are on first name terms and there is "enormous confidence" among the participants.

Reschedulings have become such common practice that the club has worked out a common format for the wording of debt agreements. The accord is typed out in advance on a word processor—all the participants need to do is to fill in the gaps left for the figures and precise terms.

The club's operations are run by the French Treasury, where meetings are normally held. It maintains a six-man secretariat which (in addition to other jobs at the Treasury) keep up to date with the affairs of client countries.

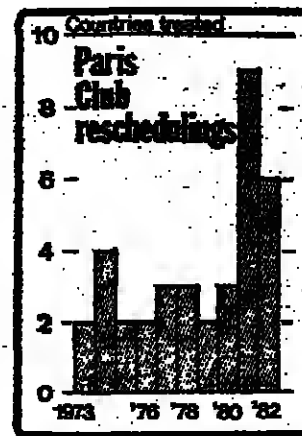
An important part of the work involves close liaison with the International Monetary Fund (IMF). Debt restructuring involves stretching out loan payments falling due during current calendar years over ten years or so. Accords are drawn up only on condition that the debtor country agrees an economic stabilisation package with the IMF.

An exception however was the agreement last month on rescheduling Cuba's debts owed to western governments. Since Havana is not a member of the Fund, the creditor nations, in a special meeting held outside the normal club framework, had to draw up targets for the country's balance of payments itself.

Unless Cuba meets the objectives, no further debt rescheduling will be agreed. Officials admit the deal may be very difficult to police without the Fund's authority to back it up. Creditor nations tried a similar approach by setting targets for Poland—also not a member of the IMF—during rescheduling in 1981, but it was not a success.

The Paris Club reschedulings cover both principal and interest due on government debt agreed under officially-guaranteed export credits or development aid programmes. Debt owed to commercial banks is dealt with under separate negotiations between the debtor government and the banking community.

But the bankers keep a close eye on the Paris Club's affairs. Rescheduling conditions agreed among governments set the



for efficiency by participant countries. M. Michel Camdessus, the head of the Treasury, occasionally takes the chair, but the talks most recently have been presided over by M. Jean-Claude Trichet, a top Treasury official who, other delegates say, is not afraid to enliven the proceedings with the occasional joke.

With the number of countries granting official export credits growing, the Paris Club occasionally has some new recruits. Mexico (which of course has debt problems of its own) turned up as a creditor nation in the recent meeting to reschedule Costa Rica's debts; Abu Dhabi attended talks on Zaire; and Israel has also sent delegates.

Not all Paris Club meetings go smoothly. A few years ago Nicaragua asked for a debt rescheduling, but turned up in Paris without having secured an IMF stability programme to re-shape its battered economy. The meeting was a fiasco.

Sudan has caused the biggest recent headaches. In February it agreed to re-schedule \$500m of payments due to governments this year, together with arrears. Because of the country's economic plight, repayment is being spread over an unusually generous 18 years, with a six year grace period.

The country's debts originally due this year would have more than eaten up the whole of its anticipated export earnings. With a total foreign debt of over \$7bn—much more than the \$4bn which was earlier estimated when the country approached the Paris Club last year—diplomats believe western governments will have no choice eventually but to write off export credits to Khartoum.

Cuba to meet creditors, Page 7

pattern for deals with other creditors. In practice, the banks grant slightly stiffer terms because they reschedule only principal, not interest. But the agreements are interlinked. Cuba, for instance, is now negotiating with a consortium of banks led by Credit Lyonnais a rescheduling of its banking debt in line with the just-agreed government package.

Accords normally take 1½ to two days to work out. Although a French official chairs the meeting, consensus is reached without the need for a vote in the last traditions of Anglo-Saxon informality. The club has no formal rules or statutes.

Conversations are held in both English and French with interpreting facilities laid on. The main language is English, with only the host officials, the Spanish and the Italians (who, according to one waggish delegate, are often incomprehensible in any language) regularly speaking French.

The French officials take clear pleasure in running the meetings and are given full marks

Survey shows 8% of Poles below headline

BY CHRISTOPHER BOBINSKI IN WARSAW

THE INCOMES of some 2.7m Poles, or 8 per cent of the population, are considered inadequate to buy basic food and clothing, according to a survey of standards of living conducted by the Central Statistical Office. Only 2 per cent thought their incomes covered all their needs.

The survey involved a nationwide sample of 56,000 families late last year, and

was the first attempt on such a scale to measure subjective views about standards of living in Poland. The full results are expected to be published in the next few months.

The few details printed yesterday in the Rzeczpospolita newspaper showed that 39 per cent of farmers considered their incomes sufficient for their needs.

This will provide ammunition for those in the Government arguing that farm incomes must be restrained.

Predictably, most pensioners feel themselves badly off, with 18 per cent reporting their failure to make ends meet. Some 31 per cent of the population as a whole is coping only by buying the cheapest food and clothing. Further up the scale, 20 per

cent said they were comfortable but had to be careful about their spending.

The survey reveals, however, that 40 per cent of the population is managing to save money.

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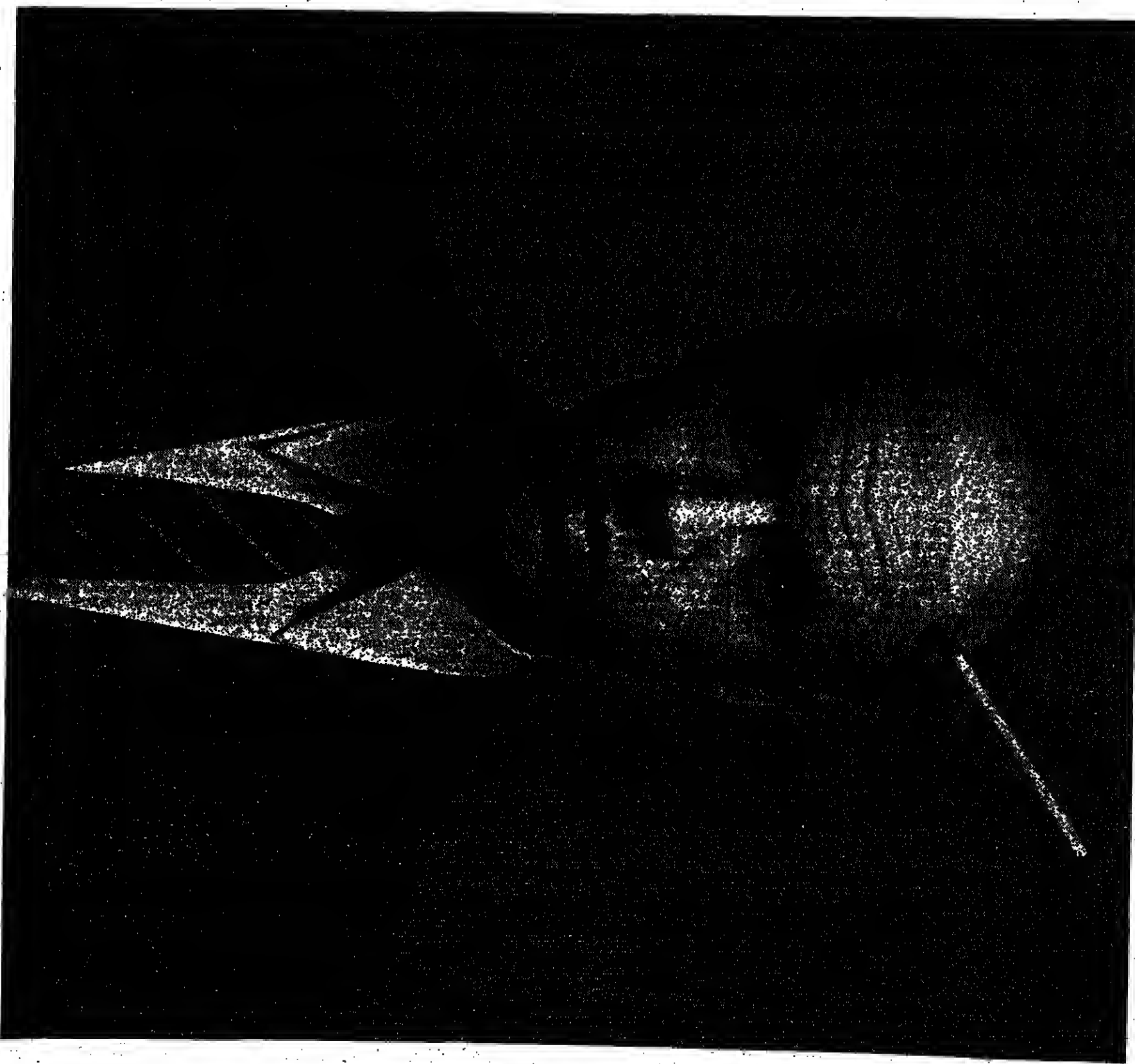
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EUROPEAN NEWS

Mystery surrounds fate of Seveso waste

BY JOHN WICKS IN ZURICH AND JAMES BUCHAN IN BONN

THE SWISS Government yesterday defended the chemical company Hoffmann-La Roche against allegations that it had concealed information from the West German Government on the whereabouts of two tonnes of highly toxic dioxin waste from Seveso in Italy. Bonn seems to have accepted the defence after initial reservations.

At the same time, Dr. Alphons Egli, the Swiss Interior Minister, expressed doubts that Mannesmann Italiana, the Italian subsidiary of Mannes-

mann of Düsseldorf, had carried out its contract to dispose of the waste in another European country. The whereabouts of the 41 canisters of waste is still not known definitely.

Last summer, Mannesmann Italiana was awarded the contract to remove the two tonnes of earth tainted with dioxin as a result of an explosion at a chemical factory in Seveso in 1976 which contaminated 1,300 hectares of countryside and caused serious skin diseases among local children. The fac-

tory was operated by Icmesa, a subsidiary of Hoffmann-La Roche.

Mannesmann Italiana was alleged to have handed over the job to sub-contractors, and not to have supervised the removal of the soil as it was contracted to do. In Zurich yesterday, however, it was announced that Mannesmann Italiana told Icmesa that the waste had been removed from Italy.

The sub-contractors appear to have removed the 41 canisters from Seveso last September 10

and transferred them to France under "vague" Customs declarations.

They were thought to be stored at a temporary storage depot at St Quentin in north-eastern France. This could not be confirmed by the West German Interior Ministry yesterday, however.

The Interior Ministry in Bonn yesterday could only go so far as to say that the Customs documents that recorded the transport of the canisters over the Italian border

and into France referred to "derivatives of aromatic hydrocarbons." They didn't mention either Seveso or dioxin.

In these circumstances, the Ministry admitted, a West German Customs post could have admitted the shipment. Speculation continues to concentrate on East Germany as a storage site because of the hard currency value of the contract. The East German news agency ADN, however, has denied there is any dioxin at East German dumps.

Irish plan widespread tax protest

By Brendan Keenan in Dublin

MANY FACTORIES, shops and schools in Ireland are expected to close tomorrow afternoon when workers take to the streets in protest at increases in tax and social security payments. Public transport could also be affected.

The main concern is the situation at Waterford Glass, one of the country's leading industrial companies, where workers have said they will refuse to pay income tax or pay related social insurance.

The Government is certain to respond in next week's Finance Bill to the pressure for tax measures over and above those announced in the budget in February.

Almost 80 per cent of income tax is now paid under the pay-as-you-earn system, and ministers are discussing ways of increasing the revenue from the professions, the self-employed and farmers. Penalties for tax evasion are likely to be increased sharply.

The pressure from workers and unions may actually make it easier for the Government to extract more from these groups and also to increase capital taxation, which this year is expected to yield about £25m (£22m), compared with £17.7m (£14.9m) from income tax.

Ministers are anxious to get across the message that, whatever they do, further substantial tax rises and public spending cuts are likely next year.

Finnish PM quits

Mr Kalevi Sorsa, the Finnish Prime Minister, handed in his resignation yesterday, paving the way for the formation of a new government after the general elections last month. AP reports from Helsinki.

Dutch estimate of oil reserves boosted by 150%

BY WALTER ELLIS IN AMSTERDAM

DUTCH OIL reserves have been increased officially by 150 per cent, to 41.5m tonnes, following assessment of "speculative" finds made last year in the Breeveertse sector of the North Sea, 40 miles north-west of The Hague.

The new figure is made up of 18.5m tonnes of proven reserves and 23m tonnes unproven, and compares with a previous estimate of 8.5m tonnes in both categories.

If the total is confirmed by exploration this summer, claims made last month by Holland Sea Search, an Amsterdam-based offshore concern, that at least 20 per cent of the Netherlands' oil needs can be met by domestic supplies will have been vindicated.

The revised estimate was announced in Parliament by

Mr Herman Ruiding, the Finance Minister. MPs were told that Dutch annual oil consumption was now around 22m tonnes and that known offshore reserves should meet some 15 per cent of the country's needs from 1985-86. Onshore reserves — mostly in the far north of the Netherlands — would add a further 5 per cent, he said.

Mr Ruiding was including finds recorded last year by Mobil and Amoco in the P8, P9 and P10 blocks of the Dutch sector, for which production permits are now being processed. He did not mention the potential contribution of unproven reserves, which could double the total and make the Netherlands 30-35 per cent self-sufficient in oil within the next five years.

Coalition at odds on cuts

BY OUR AMSTERDAM CORRESPONDENT

A DISPUTE has arisen within the Dutch coalition over nearly £1.2bn (£500m) of economic cuts put forward by the Cabinet last weekend. Yesterday, Mr Bert de Vries, floor leader of the Christian Democrat majority within the coalition, said he could not accept a 2 per cent reduction in social welfare benefits written into the scheme unless public sector employees accepted a similar cut in wages.

Mr Ed Nijpels, leader of the Liberal Party, the minority partner in the coalition, retorted that the two issues could not be linked in this way and said that Mr de Vries had made the suggestion knowing that the civil servants would object.

Mr de Vries has been calling for extra cuts this year of only £1.15bn (£575m) while the Liberals and some right wing Christian Democrats are pressing for £1.2bn. The spring budget is shortly to be presented to Parliament.

The cuts will be on top of the £1.13bn in savings already contained in the Government's policy document for 1983. Expenditure has been rising recently in spite of efforts to contain it. Even the surplus on the balance of payments, which had been forecast to reach £1.4bn this year, is now expected to be no more than £1.1bn.

French minister in Spain for arms talks

BY TOM BURNS IN MADRID

THE FRENCH Defence Minister, Mr Charles Hernu, arrived in Madrid yesterday, for two days of talks aimed at increasing the already considerable Franco-Spanish arms co-operation links.

In addition to working sessions with Mr Narcis Serra, his Spanish counterpart, he is also scheduled to hold talks with Prime Minister Felipe Gonzalez and Mr Fernando Moran, the Finance Minister, on Spain's independent line within Nato.

Under the terms of a 1970 military co-operation agreement signed by the two governments, French AMX tanks and Agosta class submarines, two of which are already in service in the Spanish navy and with a further two under construction. The discussions are expected

to examine possible co-operation in a new generation of tanks and development of the submarine programme. They are also likely to review the procurement of missiles, deliveries of Mirage III fighter aircraft and Spanish interest in an increased transfer of French technology.

The political talks scheduled for Mr Hernu underline Madrid's interest in explaining its decision to freeze negotiations on joining Nato's military command structure while it reviews the terms of its membership. France's own independent status within Nato has long been the object of study by Madrid's Socialist Government some of whose members envisage a similar eventual position for Spain within Nato.

EEC aims for closer Gulf links

By John Wyles in Brussels

THE EUROPEAN Community is taking its first tentative steps towards closer political co-operation with the Gulf states by providing technical services to aid the development of the six-nation Gulf Co-operation Council.

Recent talks in Riyadh between Mr Abdulla Bishara, the Council's secretary-general, and Mr Joseph Loeff, the European Commission's deputy director-general for external relations, have produced the first co-operation programme between the two regional bodies.

The programme is the first move in a step-by-step approach which may eventually realise the EEC's hopes for closer and more systematic political contacts with the Gulf.

The Community offered co-operation agreements to the individual Gulf states in early 1980 in the wake of the Soviet invasion of Afghanistan which was seen as a potential threat to the stability of the vital oil-producing region.

These approaches apparently aroused little interest at the time in the Gulf when Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Oman and Bahrain were more preoccupied with setting up their own regional grouping aimed at close economic and defence co-operation.

The Gulf Co-operation Council was eventually launched in June 1981 and part of the specialist help to be organised by the Commission will be the supply of expert advice on the creation of a customs union.

In addition, the EEC will advise the Gulf states on setting up a common statistics and data bank system. The Co-operation Council's documentation centre will also be supplied with a complete set of Community publications.

It has also agreed further that the two sides should consult on the marketing and supply of energy: a discussion which the Community has long been seeking with Arab oil-producers.

The first expert meeting at expert level will take place in the autumn.

More generally, EEC member states will be hoping that this relatively modest start to Community-Council relations will strengthen Europe's relations with six moderate Arab governments whose future is closely tied with the development of the Arab-Israeli confrontation.

Solidarity trial

Mr Edmund Baluka, a prominent member of the banned Solidarity union who had close ties with emigre groups in France, went on trial in Poznan yesterday charged with trying to subvert Poland's Communist system. Reuter reports from Warsaw.

Bombings in Corsica

BY PAUL BETTS IN PARIS

THE OUTLAWED separatist Corsican National Liberation Front claimed responsibility yesterday for two bombings that rocked Ajaccio, the island's largest city, at the weekend. They were the largest single act of retaliation by the separatist movement since the French government launched a large-scale campaign against political and criminal violence on the island at the beginning of this year.

Commissaire Robert Broussard, one of France's best known policemen, was sent to

organise the campaign on an island with a long history of nationalism and extremism.

The separatists yesterday accused the authorities of infiltrating policemen into their movement to undermine what they called "the Corsican national struggle."

They also condemned police attempts to portray the group as a criminal rather than political one.

Commissaire Broussard has scored heavily so far by uncovering links between some members of the separatist movement and ordinary crime.

BASE LENDING RATES

A.B.N. Bank	10 1/4%	Guinness Mahon	10 1/4%
Al Baraka International	10 1/4%	Hambros Bank	10 1/4%
Allied Irish Bank	10 1/4%	Heritable & Gen. Trust	10 1/4%
Amro Bank	10 1/4%	Hill Samuel	10 1/4%
Henry Ansbacher	10 1/4%	C. Hoare & Co.	10 1/4%
Arthurbutn Latham	10 1/4%	Hongkong & Shanghai	10 1/4%
Armed Trust Ltd.	10 1/4%	Kingsnorth Trust Ltd.	12 %
Asses Bank Corp.	10 1/4%	Knowlesy & Co. Ltd.	12 %
Banco de Bilbao	10 1/4%	Lloyds Bank	10 1/4%
Bank Hapoalim BM	10 1/4%	Malayan Banking	10 1/4%
BCCI	10 1/4%	Edward Manson & Co.	11 1/2%
Bank of Ireland	10 1/4%	Midland Bank	10 1/4%
Bank Lennal (UK) Mc	10 1/4%	Morgan Grenfell	10 1/4%
Bank of Persia	10 1/4%	National Westminster	10 1/4%
Bank Street Sec. Ltd.	10 1/4%	Norwich Gen. Tr.	10 1/2%
Banque Belge Ltd.	10 1/4%	P. S. Refson & Co.	10 1/2%
Banque du Rhone	11 1/2%	Roxburgh Guarantee	11 %
Barclays Bank	10 1/4%	Royal Trust Co. Canada	10 1/4%
Benedict Trust Ltd.	10 1/4%	Slavenburg's Bank	10 1/4%
Bris. Bank Holdings Ltd.	11 1/2%	Standard Chartered	10 1/4%
Brit. Bank of Mid. East	10 1/4%	Trade Dev. Bank	10 1/2%
Brown Shipley	10 1/4%	Trustee Savings Bank	10 1/4%
Canada Permy Trust	11 %	T.C.B.	10 1/4%
Castle Court Trust Ltd.	11 %	United Bank of Kuwait	10 1/4%
Cayzer Ltd.	10 1/4%	Volksbank Intl. Ltd.	10 1/4%
Chadwick	10 1/4%	Westpac Banking Corp.	10 1/4%
Charterhouse Japan.	10 1/4%	Whiteway Ltd.	11 %
Chocoulators	11 1/2%	Williams & Glyn's	10 1/4%
Citibank Savings	11 1/2%	Wintrust Secs. Ltd.	10 1/4%
Clydesdale Bank	10 1/4%	Yorkshire Bank	10 1/4%
C. E. Coates	11 %		
Bank of the Middle East	10 1/4%		
Consolidated Credits	10 1/4%		
Co-operative Bank	10 1/4%		
The Cyprus Popular Bk	10 1/4%		
Duncan Lawrie	10 1/4%		
E. T. Trust	11 %		
Bank of the East	10 1/4%		
First Nat. Fin. Corp.	13 %		
First Nat. Secs. Ltd.	13 %		
Robert Fraser	11 1/2%		
Grindlays Bank	10 1/4%		

■ Members of the Accepting House Committee.
↑ 7-day deposits 7.5%; 1-month 7.0%; 3-month 7.5%; 6-month 10.1%.
↑ 7-day deposits on sums of under £50,000 7%; £50,000 up to £50,000 7.5%; over £50,000 8%.
↑ Call deposits £1,000 and over 7.5%.
↑ 21-day deposits over £1,000 9.5%.
↑ Demand deposits 7.4%.
↑ Mortgage base rate.

OVERSEAS NEWS

Australian unions may agree to pay restraint

BY MICHAEL THOMPSON-NOEL IN SYDNEY

THE NATIONAL economic summit meeting convened by Australia's new Labour Government opened in Canberra yesterday with the Australian Council of Trade Unions (ACTU) indicating its readiness to reach agreement on continued wage restraint.

In return, it expects the Government to move fast on job creation and economic expansion.

The summit meeting - part of Prime Minister Bob Hawke's strategy to forge much closer ties between unions, business and government - represents an unprecedented exercise in "open government" in Australia.

Yesterday, the Government announced details of its proposed

prices surveillance authority and of its economic planning advisory council. The purpose of the latter is to help set broad economic targets.

Mr Hawke told the meeting that its task was to secure broad agreement on the role of the Government's proposed prices and incomes policy, and to discuss key problem areas such as wages, industrial relations and job creation.

The meeting, which lasts all week, will also examine the reasons for Australia's present economic decline.

In an important move, the ACTU said that it accepted the need for tax increases, provided the extra revenue was ploughed into job creation.

The Federal Treasurer, Mr Paul Keating, stressed that the Government's twin objectives were wage restraint and lower inflation.

● The uranium mining town of Mary Kathleen in the Australian outback went on sale yesterday to the highest bidders, Reuters reports.

The one-week auction of buildings and equipment will erase the town from the map and its 1,000 inhabitants will be replaced by sheep.

Mary Kathleen, 800 miles north-west of Brisbane, was built in the late 1950s to provide Britain with uranium oxide. It was closed in the 1980s but reopened in 1979 to supply the U.S., Japan and West Germany until the ore ran out.

SA unions seeks wider grouping

By Bernard Simon in Johannesburg

SEVEN OF South Africa's largest emergent black trade union groups, with a combined membership of around 200,000, are to examine the feasibility of forming a joint federation.

At a meeting in Cape Town, the unions agreed to set up a committee to investigate the matter.

Participants include the Federation of South African Trade Unions (Fosatu), the largest grouping of black trade unions, whose 12 affiliates are strongest in the motor, engineering and textile industries.

Among the other unions which have agreed to the study are the General Workers Union, widely recognised as one of the best organised of the emergent unions, and the radical South African Allied Workers Union (SAAWU).

The move towards co-operation has been given added impetus by the weaker negotiating position of the unions since the onset of the recession in the South African economy 18 months ago. Unions have been unable to prevent large-scale retrenchments, and have been powerless to counter the increasingly tough stance of employers against strikers.

Previous unity moves have been frustrated by wide policy differences among the unions. The Council of Unions of South Africa (Cusa), which has, so far, declined to take part in the moves towards co-operation, has argued that creation of such a body would stifle the emergence of black trade union leaders.

Reagan plan loses its linchpin

BY REGINALD DALE, U.S. EDITOR, IN LONDON

KING HUSSEIN'S refusal to join the Middle East peace process has knocked the linchpin out of President Ronald Reagan's initiative - one of the main planks of his foreign policy.

Although the initiative, launched on September 1, had clearly been foundering for several months, Washington had been pinning its hopes, increasingly desperately, on the King to take his courage in both hands and step forward as its saviour.

In addition to private and public appeal, the Reagan Administration hinted that some of the sophisticated U.S. weapons that the King wants, such as mobile anti-aircraft missiles and advanced fighters, might be more easily forthcoming if he joined the peace process.

Only last Friday, the Administration said publicly that the U.S. would also put renewed pressure on Israel to freeze the

establishment of Jewish settlements in the occupied territories if he did so.

The Administration has stepped up pressure on the Government of Mr Menachem Begin, the Israeli Prime Minister, to withdraw from Lebanon by withholding delivery of a second batch of 75 F-16 fighters that Israel says it needs for its defence.

It also frantically searched for a formula to guarantee the security of Israel's northern border after the Israeli army pulled out.

Now that all these efforts have failed, Washington will certainly do its best to find some other way of salvaging its initiative.

Several steps were said to be under consideration in Washington yesterday. Mr Reagan's first move on hearing the news was to telephone King Hussein and King Fahd of Saudi Arabia, and yesterday he was in touch with other moderate Arab leaders, who privately favour

exploring the U.S. plan further. The aim appeared to be to persuade them to use their financial and political leverage to force the PLO's various factions into an agreement with King Hussein that would allow him to go ahead.

Mr George Shultz, the Secretary of State, said the King was very close to entering the talks until the PLO made last-minute changes in the agreement on his participation.

However, while King Hussein might like to participate, he can only do so with PLO agreement, and the changes demanded by the PLO appear to make this impossible.

Mr Shultz says that the changes were insistence that PLO representatives must be physically present at the bargaining table and a return to the demand for a Palestinian state - both totally unacceptable to Washington.

The chances of the U.S. making a radical shift of policy and recognising the PLO in the run-up to a presidential election

are virtually nil. The 1994 election is already casting its shadow, and U.S. administrations traditionally refrain from taking major Middle East initiatives in the pre-electoral period - largely because of the strength of the U.S. Jewish lobby.

If any good can come of the latest setback, in Washington's eyes, it is that it might conceivably hasten Israel's withdrawal from Lebanon - on the argument that Mr Begin may have been dragged into the withdrawal negotiations to keep King Hussein out of the peace talks and kill the initiative, which he bitterly opposes.

If the assumption is true, as most people believe, Washington will privately blame Mr Begin as much as the PLO or King Hussein for the initiative's death-throes. But it has clearly demonstrated in recent months that it is impossible of coping with Mr Begin - and he is, in any case, the last person to want to help give it the kiss of life.

Iranians launch new offensive

BAGHDAD - Iran said yesterday that Iranian forces had launched a major offensive in the Gulf War and reported fierce fighting along its eastern border. Iran said its forces had recaptured a large area of its territory in heavy fighting.

A military communique from Baghdad said the Iranians attacked in the south-eastern border province of Misan along a 30km front.

A later communique said most of the Iranian thrust was beaten off but fierce fighting was continuing. Three hundred Iranians were said to have been captured, while the rest of the attackers either fled or were killed in the fighting, which occurred between the border villages of Al-Eila and Zubaidat.

Tehran radio said artillery battles were continuing yesterday in the Eim-e-Khosh region which forms the boundary between the mountainous province of Ilam and the plain of Khuzestan province.

It claimed that 3,000 Iraqi soldiers had been killed or wounded in the new attack, which a communique said was the continuation of Iran's Fajr (Dawn) offensive in February.

The communique said several Iranian villages, three strategic heights and a military outpost had been recovered in the offensive. King Fahd of Saudi Arabia ordered the temporary closure of a desalination plant drawing water from the Gulf yesterday as a huge

oil slick threatening eight states near the Saudi coast.

Oil gushing from shattered Iranian wells at the head of the Gulf has produced a slick spread across 19,500 sqkm, causing the worst pollution ever seen in the region.

The official Saudi press agency quoted the agriculture ministry as saying that King Fahd had also ordered fishing to stop in polluted areas.

Yesterday, helicopters spotted oil 10 miles from Al-Khobar, west of Bahrain, where the desalination plant is sited.

The eight Gulf littoral states have been trying to persuade warring Iran and Iraq to agree on capping the wells in the war zone. Reuters

Moroccan held in PLO killing

A 26-year-old Moroccan citizen is being held for questioning by the Portuguese authorities following the assassination on Sunday of Dr Issam Sartawi during the Socialist International congress at the Montchore hotel in the Algarve, Diana Smith reports from Lisbon.

Dr Sartawi, 50, a moderate who acted as a roving PLO envoy in Europe, was an observer at the congress.

Hussein and Arafat acquire time to ponder next steps

BY RAMI G. KHOURI IN AMMAN

THE breakdown in Palestinian-Jordanian talks to formulate a joint negotiating position on talks with Israel, although a blow to President Reagan's Middle East initiative, gives King Hussein and the Palestinian leadership considerable breathing space to ponder future moves.

The breakdown was prompted by two key points:

● Jordanian frustration at bestiality on the part of the Palestine Liberation Organisation (PLO) in drawing up a joint negotiating team to enter peace talks based on the Reagan initiative, and

● Considerable scepticism on the part of both Jordan and the PLO that the U.S. was willing to exert the kind of pressure necessary to halt Israeli settlements in the West Bank and Gaza and effect a withdrawal of Israeli occupation troops from Lebanon.

The Jordanian Cabinet statement issued on Sunday clearly left the new move to the PLO and the Palestinian people. King Hussein's affirmation that

he cannot be expected to represent the Palestinians in any future peace talks has dealt a strong blow to U.S. hopes that Jordan could be enticed into entering the suspended American-Egyptian-Israeli Camp David accord talks on the future of the West Bank and Gaza.

But behind the immediate gloom are reasons to expect an accelerated U.S. and Arab drive in peace-making efforts within the coming year. The breakdown in the Jordan-PLO talks removes the considerable, and perhaps largely self-imposed, pressures on King Hussein to decide his next move. The PLO leadership also gains valuable breathing space to formulate future strategy.

One important task is to reduce Syrian and pro-Syrian Palestinian opposition to a broadened Middle East negotiation based on the Reagan initiative. The PLO also needs extra time to explore means of participating indirectly with the U.S. initiative while remaining faithful to the principles of both PLO decisions and the Fez

Arab summit resolutions of last autumn.

Considerable progress has been made towards improving Jordanian-Palestinian ties in the past six months. The speedy agreement on a confederal relationship between Jordan and any future Palestinian state, a key element of the Reagan plan, indicated clearly the extent to which Jordan and the PLO felt the need to go along with the U.S. initiative to the greatest extent possible, given the lack of other options.

In the end, however, the PLO leadership was not fully convinced the Americans could or would deliver on their promise to halt Israeli settlements if a Jordanian-Palestinian delegation stepped forward.

The PLO will now face strong pressure to formulate a policy by which the organisation can be seen as entering a negotiating process with some promise of achieving the most minimal Palestinian demands - namely the withdrawal of Israel from the West Bank and Gaza.

Jerusalem welcomes collapse of efforts to obtain PLO approval

BY DAVID LENNON IN TEL AVIV

JERUSALEM yesterday welcomed the collapse of efforts to obtain PLO approval for King Hussein of Jordan to enter peace negotiations with Israel. Officials now hope U.S. pressure for Israeli concessions in the Lebanese peace talks and a freeze on West Bank settlements will be eased.

Israel sees the latest developments as confirmation that it was right in its assessment that the PLO has not moderated its position, and in its refusal to make any gestures to ease the path of King Hussein into peace talks.

Israel rejected the Reagan plan when it was proposed in September. Mr Menachem Begin, the Prime Minister, said at the time that it was "stillborn," and the latest developments are seen in Jerusalem as confirmation of this assessment.

The only basis for negotiations with Jordan, officials say, remains the Camp David accords, and Israel's invitation to King Hussein to join in talks with Israel on this basis still remains open.

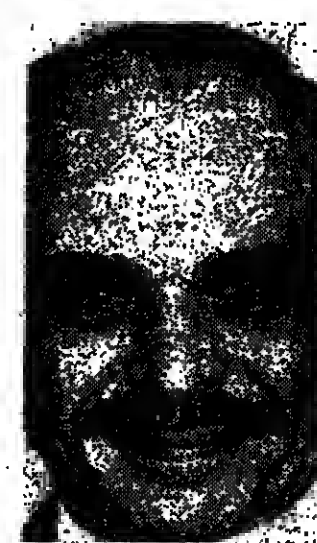
Israel's biggest fear about the Reagan proposal was that it envisaged trading parts of the occupied West Bank for a peace agreement with Jordan.

The Begin Government is totally opposed to ceding any of the West Bank, which it considers part of the biblical land of Israel promised to the Jews by God.

In a drive to prevent any surrender of this territory, the government continues to intensify its programme of building Jewish settlements on the West Bank. A plan shortly to be presented for Cabinet approval envisages the construction of 57 settlements in the next four years, as well as an expansion of existing settlements.

With the removal of the threat of having to open negotiations over the West Bank, the government may breathe more easily, but it is unlikely to ease back on its settlement programme for fear that the pressure for concessions may rise again soon.

On the other hand, the collapse of the Reagan initiative may make it easier now to reach agreement over the withdrawal



King Hussein

Syrians cannot hide satisfaction

By Louis Fares in Damascus

FIRST Syrian reaction to the Jordanian announcement came yesterday in a "political commentary" broadcast by the government-owned Damascus state radio, which did not hide its satisfaction at the results of the Amman talks between King Hussein and Mr Arafat.

"What Syria has forecast is taking its way to reality," the commentary said. "It is established now, after Sadat's surrender to the U.S. and Israel, and after the invasion of Lebanon and what has preceded and followed this invasion, that the U.S. does not have the keys for a solution in the area, and that the schemes and projects put forward by the U.S. do not answer the minimal requirements accepted by the Arabs."

"This, in addition to the fact that the U.S. is not able, or is not willing to convince, or to force Israel accepting even these American plans," it went on.

Reuters reports from Bahrain: Mr Yasser Arafat, the PLO leader, sent a message to the Kremlin yesterday on recent Middle East developments, the official Saudi Press Agency reported.

The agency said in a report from Sana, where Mr Arafat is meeting North Yemeni officials, that the message was sent through the Soviet Ambassador and also dealt with Mr Arafat's recent Arab tour.

AP reports from Kuwait: PLO officials declined immediate comment on King Hussein's decision to discontinue co-ordinating with PLO on Middle East peace moves. The Jordanian decision, they said, required careful study.

But Palestinians close to the PLO said they expected King Hussein to encourage the so-called moderates "in the West Bank and Gaza to replace the PLO in any future Middle East peace action."

AP reports from Moscow: The Soviet Union said yesterday that Jordan's refusal to enter U.S.-sponsored talks on the Middle East was a "deadly blow to Washington's 'Fez' efforts" to realise President Reagan's plan.

Massys: Alte Pinakothek, Munich



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U.S. banks urged not to withdraw from lending

By William Hall in Puerto Rico

U.S. REGIONAL banks must not pull out of the international banking market at short notice if the world banking crisis is to be solved, Mr Peter Cooke, head of banking supervision at the Bank of England, warned yesterday.

Mr Cooke, who is one of the world's leading banking supervisors and has been intimately involved in diffusing a recent international banking crisis, was addressing 700 bankers at the annual convention of the Bankers' Association for Foreign Trade (BAFT), in Puerto Rico. He warned that "the snapping of just a few strands weakens the whole fabric to the detriment of all."

Mr Cooke's warning was particularly relevant since it was addressed to an audience of mainly regional U.S. banks. More than 1,000 U.S. banks have lent money to Mexico and many have been wanting to pull out of international lending as Mexico's financial problems have mounted.

Mr Cooke said that some banks are no doubt wishing they had not undertaken the international business. Some argue that they do not understand the business and others have demonstrated very clearly that they and their depositors would be better served if they were to stick to domestic business in future.

Balance sought

"I understand that argument, but I cannot say it should prevail in current circumstances," said Mr Cooke. "What may be perfectly reasonable for one bank is unreasonable for a large number of banks which, acting collectively, have the effect of imposing severe contraction pains on the system."

A balance must be struck between the interests of borrowers and lenders if crises were to be prevented and careful judgments were needed to arrive at the appropriate involvement of individual banks.

Mr Cooke emphasised that central bank involvement in recent debt negotiations was essentially "to set out to ensure that the banks involved were fully aware of the overall situation in which they had become involved." He denied that there had been any arm-twisting and said that the final decision had been up to the banks themselves.

He said there were always some inhibitions by the authorities to impel banks to take certain actions under certain circumstances because "it seems to carry with it some kind of implication of underlying support for those institutions which followed that course of action. This is a very delicate path which has to be trod," said Mr Cooke.

Closer scrutiny

Turning to the short-term money markets, he said that the maintenance of essential flows in the interbank markets was extremely important for everyone's interest. He added that banks will need to pay closer attention to the nature of the relationships they enter into in the interbank markets.

They could, with benefits, scrutinise rather more closely over the longer term, establish better guidelines for themselves and have a better understanding and knowledge about the way the short-term funds are being used.

AP-DJ adds from Washington: Federal Reserve Board chairman Paul Volcker, speaking to the Senate Banking Committee, said that if lenders withdrew from foreign lending abruptly, financial crises could be precipitated in "otherwise creditworthy countries." Mr Volcker said a "balanced, sound, long-range approach" is needed in foreign lending activities of U.S. banks.

Effort intensifies to secure end to fighting in Central America

BY HUGH O'SHAUGHNESSY

INTENSE diplomatic activity is under way in Western Hemisphere and European capitals to find a negotiated solution to the fighting and tensions in Central America. The Left-wing Sandinista Government in Nicaragua, which has been accusing the U.S. Government of backing an invasion of its territory by counter-revolutionary forces based in Honduras, has

repeated its support for the "Contadora Plan" launched by the Foreign Ministers of Panama, Mexico, Venezuela and Colombia in January at their meeting on the Panama island of Contadora. The plan, which called for a halt to the supply of foreign military aid to the countries of Central America and the withdrawal of foreign troops from the Isthmus, was also

backed by the Presidents of Colombia, Panama and Costa Rica who met in the Panamanian capital at the weekend. For its part the military dominated Government of Honduras, which has increasingly close relations with Washington, is still pressing for the Organisation of American States (OAS) to take a role in mediation

efforts. The Nicaraguan Government has rejected the OAS as an inappropriate forum because of its close links with U.S. policies. The proposal that the United Nations should assume a more active role in the Isthmus, which was put forward by Sir John Thompson, the permanent British representative at the UN, when he chaired the debate in the Security Council

last month on the invasion of Nicaragua, has received increasing support. It has been backed by France and is understood to have attracted the personal support of President Miguel de la Madrid of Mexico. Britain is not expected to push its proposal ahead of any diplomatic initiative being taken by the countries of the region. At the same time,

however, the British plan, backed as it is by France, could form the basis of a peace proposal tabled by the European Community as a whole. A European plan would be expected to cover Nicaragua, El Salvador, Honduras and possibly Guatemala, where operations by the forces of Gen Efraim Rios Montt, have claimed many thousands of lives.

Proponents of an increased role for the UN in Central America point to the fact that Sr Javier Pérez de Cuéllar, UN Secretary-General, is an experienced Peruvian diplomat and that some policy makers in Washington realise that the OAS has neither the reputation of impartiality nor the diplomatic expertise to carry through a complicated mediation operation.

Andrew Whitley visits Grenada, described as a threat to the U.S.

Fear and resentment under the nutmeg tree

THE NOTICE on the wall of the reading room in Grenada's main public library is more menacing than the customary threats of fines for delinquent borrowers. "There are three categories of workers," the notice reads, "Fits, misfits and counterfits (sic): which category are you?"

The two-storey, stone building on the harbour at St George's, Grenada's old-fashioned little capital, does not look capable of harbouring such Stalinist sentiments. Its dour exterior has the look of a Baptist chapel in the north of England. But then, Grenada as a whole does not appear to fit the description U.S. President Ronald Reagan has given it of being a "threat to the security of the U.S."

An exhaustive tour of the atrocious roads which cross the hilly, heavily forested island threw up no trace of the alleged submarine base Grenada is said to have set up, nor of the missile emplacements the U.S. President has said he fears.

As for the new \$71m international airport which Cuba is helping to finance and build—prompting Western concern that it could be used as a staging post for Cuban or Soviet adventures—the emerging runway and terminal buildings are plain for all to see. So, too, are the 250-odd Cubans working on the site.

Their target is to get the airport at least functional by next March, in time for the bicentenary of the coup which brought Mr Maurice Bishop's New Jewel Movement to power in 1979.

For those of you who haven't been to Point Salines recently, it is essential that you go and view the runway. Brother Bernard Coard, Grenada's Finance Minister and ideologue, told a mass meeting in February, while presenting the 1983 budget. Many Grenadians do just that.

But while the Government dismisses the U.S. Administration's statements out of hand, it is still preoccupied by what it sees as the real threat of a "Bay of pigs"-style mercenary invasion, backed by the U.S. Since the overthrow of Sir Eric Gairy, the elected Prime Minister who ran Grenada as his personal fiefdom, Mr Bishop's Left-wing Government has had to cope with the active hostility of Washington. In recent months the chorus of denunciations has been stepped up to such a pitch that many in Grenada fear Mr Reagan will have to act to back up his words.

The strike into Nicaragua by anti-Sandinista rebels supported by the U.S. has heightened tensions in its ally Grenada. "This build-up of propaganda against us may lead to a hostile act," said Mr Union Whiteman, Grenada's Foreign Minister, adding that the army and militia were on the alert. A U.S.-backed force of exiles and

mercenaries is being trained in Miami, he charges.

Cuban assistance to Grenada in the military, technical and financial fields has been substantial.

One night last September, during an unusually long blackout, at least six Soviet-built armoured personnel carriers were brought ashore in great secrecy. No longer will it be possible for 47 men armed with smuggled rifles to overthrow the Government, as the New Jewel Movement did.

Mr Bishop has made clear by his actions that he has no intention of allowing any opposition to develop. Up to 100 known or suspected opponents are being

held without trial in a former barracks on the hill above St George's, a substantial number in a population of only 110,000.

There is no doubt that the Bishop Government is working hard to develop the country's agricultural resources and make up for the stagnation of the Gairy era. The World Bank, for one, has been impressed by the progress of recent years.

According to Mr Coard, unemployment has dropped from 49 per cent at the time of the coup to 14 per cent, economic growth last year was a creditable 5½ per cent, and living standards are rising.

Earnings from tourism are critical because of the large

and probably permanent, external trade deficit. Last year's deficit of EC\$101m (225m) was double Grenada's total export earnings.

The principal exports of bananas (Geest, the UK company, is the monopoly buyer), nutmeg and cocoa have not done particularly well in recent years. Nor has the tourist industry.

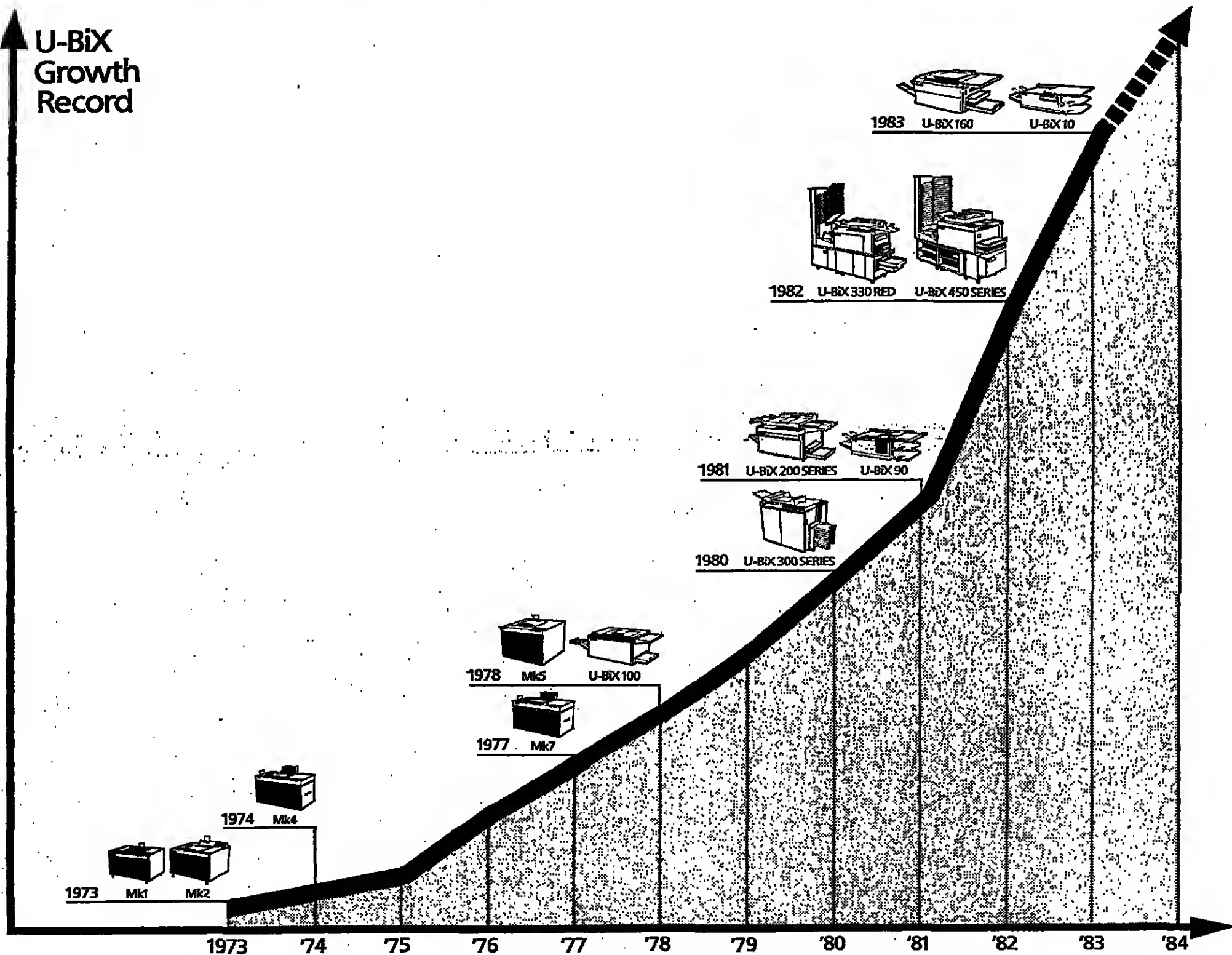
Meanwhile capital expenditure is growing at a phenomenal rate: up from EC\$16m in 1979 to EC\$101m last year. To fund the programme of civil works and fledgling industries, Grenada has inevitably become more dependant on foreign aid and loans.



Both the U.S. and Britain have refused to consider new assistance, while the Soviet bloc has, in contrast, stepped up its help with credits, equipment and long-term import commitments.

Nearly 40 per cent of this year's planned capital spending is earmarked for the new airport, designed to pave the way for a "new economic era" as the tourists flock in. Modern

jets cannot use the existing tiny airport. But whether Western tourists clutching hard currency will indeed pour in when the airport opens is very much an open question.



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Cubans to meet creditors on short-term debt

BY PETER MONTAGNON, EUROMARKETS CORRESPONDENT

CUBAN officials are to meet with their leading international bank creditors in Paris on Friday in an effort to hammer out terms for the extension of more than \$200m (£131m) in short-term debt.

The talks form a vital and final part of the country's efforts to renegotiate its \$3.2bn foreign debt. Cuba has already reached a tentative agreement with its bankers on the rescheduling of some \$140m in medium-term debt due this year and agreed with Western governments to reschedule \$400m over 8½ years.

But the short-term debt talks are likely to prove particularly delicate because they will involve the conversion of inter-bank lines into full short-term loans. Cuba has told the banks that, unless they agree, it may have to revise other parts of

its debt renegotiation because of its precarious liquidity position.

The talks on Friday will centre on a proposal to extend the short-term debt for one year at a margin of 1 per cent over Eurocurrency rates. For political reasons Cuba's debt is basically denominated in non-dollar currencies.

The country's 100 creditor banks still have to agree formally to the terms proposed for rescheduling the \$140m equivalent in medium-term debt. Proposed is a rescheduling over seven years at a margin of 2½ per cent over Eurocurrency rates with repayments beginning after a 2½ year grace period. There would be a 1½ per cent renegotiation fee for the arrangement which covers debt maturing between September, 1982 and the end of this year.



UK NEWS

£20.4m loss for Inmos after high start-up costs

By Jason Crisp

INMOS, the controversial, state-backed microchip company, made a loss of £20.4m on sales of £13.7m last year but is expected to move into profit in 1984.

The losses reflect the high start-up costs of the company intended to give Britain a presence in the mass-market microchip business. A major part of its costs last year was the establishment of a large, new semiconductor plant in Newport, Wales.

Inmos, founded in 1978, has received about £115m in backing from the Government in the form of equity, guaranteed loans and grants. At the beginning of this year the Government reluctantly provided the final £15m in equity. The company is expected to try to raise private finance before the end of this year.

Inmos sales rose to £13.7m last year from £2.14m in 1981. Sales in the first quarter of the present financial year are more than £5m, and for the full year are expected to be well over double last year's figure.

More than 80 per cent of Inmos's sales are in the U.S. where it manufactures most of its output at its first factory in Colorado Springs. Production at the second plant in Newport is being rapidly stepped up and a second shift is being recruited with a third expected to

start in September. Total employment is just under 1,000.

Inmos claims to have about 80 per cent of the market for fast static 16K random access memories (RAMS). (These are very specialised high performance memory microchips used mainly by the military but also in telecommunications).

It recently entered the fiercely competitive market for 64K dynamic RAMS. Dr Richard Petritz, managing director of Inmos was optimistic about the market for these chips because of shortages.

Malcolm Wilcox, the retired banker who was appointed chairman of Inmos when the Government injected its extra £15m, refused to give any indication yesterday of when Inmos would seek private finance.

Inmos will try to find extra sources of finance to back its revolutionary and unproven microprocessor product the "transputer". It is claimed, the transputer will not only replace existing microprocessors but also be the building block for the so-called "fifth generation" of computers.

Inmos hopes to get Government support for the development of the transputer as part of its function in the fifth generation of computers.

Lex, Page 18
Editorial comment, Page 16

Gloomy report on jobs under attack

By Gareth Griffiths

THE GOVERNMENT and the Confederation of British Industry (CBI), sharply criticised a paper produced for yesterday's meeting of the National Economic Development Council (NEDC) which argued there was no prospect of an increase in jobs during the 1980s.

Government representatives at the meeting of Government, industry and unions felt the report failed to consider the more favourable economic developments of recent weeks. The CBI also said the report gave an unacceptably depressing picture.

The National Economic Development Office (NEDO) has been told to specify details and sharpen up those issues which the NEDC should consider to help the economy achieve a better performance. These will be considered later, possibly next month.

The Government feels that NEDO has failed to consider the service sectors which it believes will create a great deal of employment.

Mr Geoffrey Chandler, NEDO's director general, said the fundamental assessment had not been invalidated by any changes since it was prepared.

The report draws together the assessments of the NEDC's 46 sector committees on their industries' medium-term and long-term performances to the end of the decade.

Lex, Page 18
Training for the employed, Page 10

Duty-free sales likely to stay

By Michael Donne, Aerospace Correspondent

SALES of duty-free goods for air travellers within the EEC seem likely to continue, after a change of mind by the European Commission. These sales generate substantial business annually for airlines and airport authorities. The British Airports Authority (BAA) alone earns £74m a year from concessions at airports, including duty-free goods sales.

The EEC some time ago proposed legislation within the Community abolishing this facility, arguing that it was a privilege for air passengers denied to road and rail travellers.

After much lobbying by the BAA, airlines and others, including some governments, the European Commission has asked the Council of Ministers to legislate in favour of the duty-free goods trade and clarify the existing law.

A new "proposed draft directive" has been issued by the EEC, endorsing the principle of duty-free allowances within the EEC but retaining reductions in the scope of those allowances in some countries.

The draft directive specifies that the allowances in Britain for arriv-

ing passengers would be the standard throughout the EEC.

Mr Philippe Hamon, the BAA's head of marketing, says this turnaround is largely the result of BAA's lobbying against the original proposals.

He says: "We still have a long way to go, as the proposals have to be thrashed out by the European Parliament, the Economic and Social Affairs Committee and a host of other officials, before the Council is able to make its decision - and the Ten Finance Ministers must be unanimous."

Mr Hamon believes, however, that the latest development is a step in the right direction, as two cases still before the European Court could lead to the abolition of the allowances, because of the ambiguous state of existing law.

He says: "The existence of the draft directive, we hope, will assist the Court in interpreting this law and avoid a ruling which would undermine the profitability of transport industries, causing a sharp increase in the cost of air and sea travel in Europe."

Harland and Wolff to make further 700 workers redundant

By our Belfast Correspondent

HARLAND and Wolff, the state-owned Belfast shipyard, is to make a further 700 workers redundant. Last year 1,000 job cuts were announced as part of a programme to reduce overheads.

Management of the loss-making company told union representatives at a meeting in Belfast yesterday that the latest redundancies would all take effect in the first week of July. The main cause is simply a lack of work.

Losses in the 15 months to March 31, 1982 fell to £26.2m, an improvement on the two previous years. A further improvement may be expected for 1983, but the results will not be published for several months.

The company also intends to introduce short-time working as necessary from July to cope with gaps in the workload. Last year, after a report from management consultants, Harland and Wolff set about cutting £11m off its annual £40m overheads. It said then that this would involve more than 1,000 job losses, about half of which have now taken place.

The latest cut in the workforce will reduce the yard's manpower to 5,000. Only two ships remain on the order book - a crude oil carrier for BP to be delivered later this year and a bulk carrier for British Steel.

Negotiations are taking place on the financing of an order for four ships worth £70m. The contract would involve four refrigerated ships for the Blue Star Line and are seen as particularly crucial for the yard's short-term future.

Mr John Parker, Harland and Wolff chairman, said the Blue Star order would ensure the company's survival and give it one of the best order books of any British merchant shipyard. If the company failed to get the order it would face a crisis.

The company is under instructions from the Government to reduce its dependence on public money. Mr James Prior, the Northern Ireland Secretary, has told the directors that the present level of subsidy (about £45m last year) cannot go on.

Midland ends \$ business at Lloyd's

By John Moore, City Correspondent

MIDLAND BANK's approved Lloyd's insurance brokers are withdrawing all their U.S. dollar business within the market because the bank does not wish to comply with new Lloyd's regulations covering dollar transactions.

Midland Bank, which has two Lloyd's companies which have operated in the market for the last three years, said yesterday that under the new rules, "we are required to enter into a registrable legal charge against group assets under the Lloyd's proposals". The group added that this was not acceptable. "We have a reputation for standing by our subsidiary companies without that sort of arrangement which could create a precedent in our other activities."

Midland said that it was not its policy to provide such a charge over its assets since compliance with the regulations could open the floodgates to a host of similar requests from other organisations.

The new rules came in force at Lloyd's in January when Lloyd's told insurance brokers that new trust deeds were to be executed in order to ensure that the U.S. dollar business was properly segregated away from their other activities and incorporated in their "insurance broking account".

Lloyd's is expected to discuss the move by Midland and its two Lloyd's companies - Midland Group Insurance Brokers and Midland Bank Insurance Brokers - when it will be decided whether it is appropriate for the Midland's insurance broking operations to retain Lloyd's status because of the non-compliance with Lloyd's rules.

Visa gives larger role to banks

By Alan Friedman

VISA, the international payment systems group, yesterday announced a package of "strategic changes" in its policy which will result in the reduction of the Visa trademark symbol on plastic cards and an enhanced role for member banks.

Mr Joao Ribeiro da Fonseca, general manager of Visa Europe, denied the change had resulted from pressure on Visa from member banks. "This is our reading of the market's evolution rather than any political pressure," he commented.

In recent months a number of bankers in the Visa network have complained privately that the organisation was playing too dominant a role in guiding the credit card policies of its banks. There is particularly violent opposition to the Visa organisation in West Germany, where banks have effectively barred the card and other Visa products and have allied themselves with American Express instead.

Uphill struggle for Sotheby's suitors

STEPHEN SWID and Marshall Cogan, for all their involvement in the U.S. art gallery world, were hardly well-known in international art dealing.

They moved on-stage last December with the announcement that they had bought 14 per cent of Sotheby's, the London fine art auctioneers, and yesterday stepped into the full glare of the spotlight with their £51m offer for the entire company.

The two Americans are having an uphill battle to establish their credentials with the shareholders and senior staff of a business which is as much a British institution as a commercial venture. Sotheby's management has as good as dismissed them as upstart manufacturers of carpet underlay with little knowledge of the art world.

Mr Swid, 42, and Mr Cogan, 45, by contrast stress the seriousness of their involvement in the U.S. art scene and the high quality of designers who have co-operated in their furniture-making activities. Mr Swid lists connections with the Metropolitan Museum of Art and the Guggenheim Museum in New York, while Mr Cogan points to his links with the Museum of Modern Art in New York and Harvard University's Visiting Arts Committee.

Both men also have sizeable art collections of their own. Mr Cogan has an "eclectic" combination of pre-Colombian, early 20th-century European and American regional art, while Mr Swid has an American collection.

Asked about the value of their pictures, Mr Swid describes it as subjective. "It lies in the pleasure of looking at it," he said.

Both men are also keen to emphasise the role that high quality furniture plays in their business activities. Knoll International, the furniture side, had 1982 turnover of \$160m compared with \$150m from General Felt.

Ironically, but significantly in the light of the present bid battle, Knoll International is not able to use its own name on its furniture in Britain.

One of the Knoll brothers licensed the British furniture company Frederick Parker and Sons to make a type of tension spring in the 1930s. Some time in the late 1940s Parker changed its name to Parker Knoll, and Knoll International, which has no link with Parker Knoll, has since sold its furniture in the UK under the "Form" label.

Swid and Cogan attempted to persuade the Sotheby's board to approve an agreed bid for the company at a meeting on Sunday. But the meeting, described by the Americans as "very formal, very British"

and by Sotheby's as "courteous and cool" achieved nothing.

Both men are critical of the way the present Sotheby's board has managed the company.

A main reason for the offer is their shared concern "for a unique institution whose traditional role"

Charles Bechler examines an unwelcome bid for one of the world's leading fine art auction houses

tion as the premier auction house of the world is under threat. "Sotheby's business during the past few years has deteriorated to the point where its market share has fallen behind that of its traditionally smaller competitor. Although the worldwide economic downturn has inevitably affected the art market adversely, Sotheby's would appear to have suffered disproportionately," they said.

Sotheby's made a loss of £3.08m in the year to August 31 1982 compared with a profit of £7.04m the year before.

The problems arose from Sotheby's rapid expansion into the British provinces and overseas during the late 1970s. At the point of its maximum financial commitment, demand for medium quality works of art fell away because of the recession.

Swid and Cogan argue that Sotheby's reaction, which has been to cut many of its operations, is short-sighted. The company left its freehold auction rooms in Los Angeles, laid off staff and moved into smaller rented premises.

Sotheby's chief executive, Mr Graham Llewellyn says the company is not willing to "slaughter" its assets when it does not need the money.

The two Americans contrast this with the success of their own business which is based in Saddlebrook, New Jersey, but which employs 3,000 people in 15 factories around the world.

Since acquiring Knoll International in 1976 Mr Swid and Mr Cogan have expanded it from a company making \$1m pre-tax profits on turnover of \$60m to one with profits of \$15m on turnover of \$160m.

The two men own 33 per cent each of the holding company, GFI/Knoll, with the remaining shares held by 14 individuals and institutions, none with a holding of more than 5.5 per cent.

The bid for Sotheby's is being made through a newly-formed subsidiary, Knoll International Holdings Inc, which is 90 per cent owned by GFI/Knoll, with 10 per cent held by nine other investors.

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Union to rule on steel strike

THE EXECUTIVE of the Iron and Steel Trades Confederation, the leading steel union, meets today to decide whether to step up its strike in Yorkshire after the British Steel Corporation's refusal to refer a wages dispute to arbitration. Last night talks continued between the union and the Corporation aimed at ending the strike which has halted the South Yorkshire plants.

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UK NEWS

EEC attack on East Europe cement imports

BY MICHAEL CASSELL

COMMON MARKET cement manufacturers are combining in an attempt to halt the increasing amounts of cement imports from Eastern Europe.

The EEC liaison committee of Cembureau, the trade federation representing all European cement makers, has formed a working party to prepare an anti-dumping case to go before the EEC Competition Directorate.

In order to get imports banned, the working party will have to prove that the East European suppliers are selling at below production cost. The team, now urgently considering its case, is headed by Mr Gordon Marshall, Blue Circle Cement's chief executive.

The action follows evidence that cement makers in Poland and East Germany are selling increasing vol-

umes of subsidised cement to West German and UK customers.

The volume to date has been comparatively small but the West European manufacturers' anti-dumping initiative is intended to kill what is seen as a growing trade menace.

In the UK, foreign cement sales have been running at only 1 per cent of the market, which last year consumed 12.7m tonnes. There is concern, however, that the penetration could quickly rise, and in preparing their case the British will have to concentrate on the potential damage to their business.

West German cement imports into the UK have also risen, although British manufacturers can take no action against other EEC trading partners.

Rugby Portland results, Page 22.

Rolls in study of 'big thrust' engine

By Michael Donne, Aerospace Correspondent

ROLLS-ROYCE is discussing with the world's airlines and aircraft manufacturers the possible development of a new "big thrust" aero-engine in the RB-211 series, called the 600.

This engine, on which some work has been done as part of the continuing development programme of the RB-211, would be aimed at future demand for engines of about 54,000lbs thrust and upwards.

It could be used in aircraft such as the Boeing 747 Jumbo jet, the Boeing 767 twin-engine aircraft, and the European Airbus A-300 and A-310, or derivatives of them.

It is, in effect, Rolls-Royce's answer to the development of the new Pratt & Whitney PW-4000 Series of engines, of between 48,000lbs and 60,000lbs of thrust announced late last year and the U.S. General Electric CF6-80 series.

THE NORTH of England has been displaced by Wales as the regional population in the UK eating the most potatoes per head. The Welsh also eat more butter, and are ahead of the national average in consumption of bacon and ham. They also drink the most tea.

Wales has the oldest housing in Britain and, perhaps because of eating habits, has the highest incidence of male deaths from heart disease. Doctors in Wales issue more medical prescriptions per person than in any other region of Britain.

These are among the comparative statistics compiled in Regional Trends, the Central Statistical Office's (CSO) breakdown of the UK lifestyle, region by region.

Robin Pauley looks at life in the regions

The changing face of Britain

With two other CSO publications, Social Trends and the General Household Survey, it helps to provide the only comprehensive analysis of the evolving pattern of life in Britain year by year.

The average male manual earnings in the north of England, the highest in Britain between 1975 and 1979, were in third place in 1982 (£148.80 a week). Northerners still eat more bread, cakes, meat, fish and eggs than the rest of Britain, but less milk and cheese.

Population in the north of England fell by more than 1 per cent between 1971 and 1981; those remaining had the highest number of marriages per 1,000 people and could buy homes for

an average price of £18,500, the lowest of any region in the UK. Just over 3 per cent of the area's population live in households headed by someone born in the New Commonwealth or Pakistan. The proportion of pensioners living alone - 31.5 per cent - is the highest in Britain.

The East Midlands population increased by nearly 6 per cent between 1971 and 1981. The average number of pupils per teacher in the region is above 19, the highest in the UK. People in this area drink the most milk and eat the least meat. It has the highest proportion of households with a washing machine (87 per cent).

Nearly a quarter of manufacturing employees in East Anglia work in food, drink and tobacco.

East Anglia's population grew by 12 per cent between 1971 and 1981. Britain's largest growth rate, but the population density is still the lowest - only 3 per cent of the UK population live there.

This compares with the north west of England, the most densely populated region with 880 persons per square kilometre.

The south east of England led the 1981 GDP per head table at £4,067. More children stay on at school after the age of 16 in the south east, and the area has the highest proportion of households with a telephone, but one of the lowest with washing machines.

*Regional Trends 1983; HMSO £16.55.

Sharp rise in sales of vans and light trucks

By John Griffiths

COMMERCIAL VEHICLE sales climbed sharply in the first quarter of this year compared with the heavily depressed levels a year ago.

But the recovery was concentrated at the lighter end of the market, for vans and light trucks. There is still no sign of any sizeable upturn for heavy truck makers, who have been hit hardest by recession.

Statistics from the Society of Motor Manufacturers and Traders show a 21.2 per cent increase in all commercial vehicle registrations in the quarter to 71,300 compared with 58,817 in the same period last year.

The recovery accelerated in March, which showed a rise of 27.3 per cent on a year ago at 27,800.

Within last month's total sales of light vans - those derived from cars - were up 35.8 per cent to 8,364. Medium and heavy purpose-built vans were up by 40.9 per cent at 11,728 and light four-wheel-drive utility vehicles were up by 63.6 per cent at 1,278.

Much the highest beneficiary in the light four-wheel drive sector was Land Rover, whose new One Ten model went on sale for the first time. Its sales jumped to 778 for the month compared with 481 a year earlier.

However, sales of heavy trucks - those exceeding 3.5 tons - showed an increase of only 3.5 per cent last month at 5,473.

For the quarter, the improvement in heavy trucks is also just under 3.5 per cent, which means that this market is still performing at less than two-thirds of its pre-recession level. The financial position of some smaller truck makers looks increasingly precarious.

Fast growth for CAD tools

BY RAYMOND SNOODY

COMPUTER-AIDED design (CAD) tools for the electronic engineering industry will be one of the most dynamic growth areas in electronics during the next few years, according to a new report from Strategic Incorporated.

The computer-aided engineering (CAE) workstations market would grow at 81 per cent a year, and by 1987 the electronic engineering CAD would be a multi-billion-dollar business, says the report.

The dynamic growth would be caused by the need to bring new designs to the market in the shortest possible time while minimising er-

rors by extensive automated checking.

CAD tools are becoming mandatory, the report argues, because the number of devices in a very large integrated circuit precludes the hand-draw approach.

Computer-aided engineering offered one of the greatest opportunities and challenges for the 1980s. The report says: "Because of the changing nature of the designer community, increasing pressure on manufacturers to use custom or semi-custom circuits, and the availability of low-cost powerful comput-

ing systems, the CAE workstations will have a dramatic impact on the way electronic designs are implemented in future."

By the mid to late 1980s sales of the workstations will be measured in tens of thousands as the price continues to drop.

Strategic Incorporated report, *Impact of New CAD Tools on the Integrated Circuit Industry*, is available from International Planning Information, Nordre Ringvej 201, 2800 Glostrup Copenhagen, Denmark, at \$1,530.

Train the employed first, says agency

BY ALAN PIKE, INDUSTRIAL CORRESPONDENT

TRAINING and re-training of people who already have jobs should become the first priority of a national adult training strategy, the Manpower Services Commission (MSC) says in a discussion document published yesterday.

This approach reflects a considerable shift in emphasis on the training of adults.

Currently some 75 per cent of people entering the MSC's Training Opportunities Programme (TOPS) are unemployed. The number subsequently finding jobs has declined sharply during the recession, and there has been growing concern that this form of training is too speculative and vaguely directed.

By contrast, the MSC says in the document that the main and most immediate emphasis of an adult training strategy must be economic. It says: "This suggests that more effort should be put into training

and re-training those already in employment or about to start a new job, rather than into speculative training or training for stock."

Providing the skills base for an economy which is not only viable but flourishing will be the most practical way to open up more opportunities for unemployed individuals.

The MSC reports: "At present over £200m per annum of public money is spent on training unemployed people under the TOPS scheme but there must be doubt whether all such speculative occupational training for adults is cost-effective in the present economic climate, either in helping them to get jobs or in providing a broad skills foundation that may help them throughout their working life."

The document adds: "Moreover, it is difficult to be certain that public money put at the disposal of em-

ployers through national schemes of this kind has secured extra advantages rather than being spent on training that would have taken place anyway."

It points out the moves the MSC is making to establish its 68 skill-centres and 20 annexes on a commercial footing. "The MSC is anxious to make what is offered in skill-centres fully relevant to local requirements and will need views on how best to do so," it says.

Reform of adult training is one of three elements of a New Training Initiative being pursued by the MSC and the Government. The others are to update apprenticeship and provide better vocational preparation for school-leavers.

The number of semi-skilled and unskilled jobs has fallen by 1m in 10 years, and 1m more are expected to disappear by 1990. With quickening technological change, it is likely that in 10 years many people will be

using quite different skills in theoretically the same jobs.

The MSC points out: "Our present system of training and associated education simply does not respond swiftly and flexibly enough to growing changes in skill requirements."

"An economic upturn now would make this abundantly clear and reinforce the need to have a training system which assists the changes which are essential to the country's economic recovery."

The MSC is convinced that technology-based learning systems - like its Open Tech programme which will use a variety of teaching techniques - hold the key to making a reality of more flexible training.

Towards an Adult Training Strategy - Manpower Services Commission, Moorfoot, Sheffield, S1 4PQ.

Editorial comment, Page 16



Gold Fields Group

MARCH QUARTERLIES

All companies mentioned are incorporated in the Republic of South Africa.

DRIFONTAIN CONSOLIDATED LIMITED				
ISSUED CAPITAL: 102,000,000 shares of R1 each, fully paid.				
	Qtr. ended 31/3/1983	Qtr. ended 31/12/1982	9 months ended 31/3/1983	
OPERATING RESULTS:				
Gold - East Drifontain:				
Ore milled (t)	705,000	705,000	2,115,000	
Gold produced (kg)	8,366.0	8,365.5	25,413.2	
Yield (g/t)	11.8	11.9	12.0	
Price received (R/kg)	16,281	15,532	15,393	
Revenue (R/t milled)	133.84	127.30	124.26	
Cost (R/t milled)	46.90	47.79	47.48	
Profit (R/t milled)	146.34	139.57	136.08	
Revenue (R000)	136,860	132,049	380,918	
Cost (R000)	52,098	53,695	140,416	
Profit (R000)	103,294	98,354	280,500	
Gold - West Drifontain:				
Ore milled (t)	720,000	720,000	2,160,000	
Gold produced (kg)	10,240.0	10,232.0	31,224.0	
Yield (g/t)	14.2	14.4	14.5	
Price received (R/kg)	16,063	15,652	15,217	
Revenue (R/t milled)	223.24	226.32	221.89	
Cost (R/t milled)	57.49	54.74	54.83	
Profit (R/t milled)	171.75	171.59	167.06	
Revenue (R000)	168,051	162,960	473,234	
Cost (R000)	41,233	39,417	118,434	
Profit (R000)	123,658	123,543	360,860	
Uranium Oxide:				
Pulp treated (t)	317,000	318,400	953,000	
Oxide produced (kg)	46,980	50,600	158,237	
Yield (kg/t)	0.155	0.160	0.166	
FINANCIAL RESULTS (R000):				
Working profit: Gold	227,252	221,697	650,380	
Profit on sale of Uranium Oxide and Sulfuric Acid	2,624	2,187	9,029	
Net tribute royalties and sundry mining revenue	1,447	2,003	5,463	
Net mining revenue	231,323	225,887	664,872	
Net non-mining revenue (group)	21,280	21,533	61,217	
Profit before tax and State's share of profit	252,603	247,420	726,089	
Tax and State's share of profit	145,646	137,775	422,907	
Profit after tax and State's share of profit	107,057	109,645	303,182	
CAPITAL EXPENDITURE:				
Capital expenditure	26,920	30,337	78,041	
Dividend	107,100	107,100	321,300	
Loan levy refund (1976)	16,558		16,558	

DIVIDEND: A dividend (No. 19) of 105 cents (60.55523c) per share was declared on 7 December 1982 and was paid to members on 9 February 1983.

CAPITAL EXPENDITURE: The unexpended balance of authorised capital expenditure at 31 March 1983 was R300.8 million.

SHAFTS:

No. 4 Shaft - E: Equipping of the headgear, erection of other surface structures and installation of equipment are in progress.

No. 4 Sub-Vertical Shaft - E: The shaft was sunk 83 metres to a depth of 798 metres below collar. The excavation of 40 Level station has commenced.

No. 5 Shaft - E: The shaft was sunk 148 metres to a depth of 1,112 metres below collar. Progress has been delayed by large quantities of water intersected during cover drilling.

No. 5 Sub-Vertical Shaft - E: Excavation of the hoist chambers is continuing.

No. 6 Tertiary Shaft - W: Slipping of the headgear portion between 24 and 26 Levels and re-erecting of the shaft between 28 and 30 Levels are in progress.

No. 7 Shaft - W: Equipping of the headgear, erection of other surface structures and installation of equipment are in progress.

On behalf of the board
R. A. Plumbidge
C. T. Fenton } Directors

11 April 1983

LIBANON GOLD MINING COMPANY LIMITED				
ISSUED CAPITAL: 7,937,300 shares of R1 each, fully paid.				
	Qtr. ended 31/3/1983	Qtr. ended 31/12/1982	9 months ended 31/3/1983	
OPERATING RESULTS:				
Ore milled (t)	420,000	420,000	1,260,000	
Gold produced (kg)	2,548.0	2,680.0	7,921.0	
Yield (g/t)	6.1	6.3	6.3	
Price received (R/kg)	16,103	15,535	15,176	
Revenue (R/t milled)	97.58	98.02	96.84	
Cost (R/t milled)	48.00	46.77	46.70	
Profit (R/t milled)	49.58	51.25	49.34	
Revenue (R000)	41,153	41,421	120,579	
Cost (R000)	20,160	19,644	58,944	
Profit (R000)	20,993	21,777	61,666	
FINANCIAL RESULTS (R000):				
Working profit: Gold	20,993	21,777	61,666	
Net sundry revenue	2,524	2,752	7,610	
Profit before tax and State's share of profit	23,517	24,529	69,276	
Tax and State's share of profit	8,080	7,922	23,175	
Profit after tax and State's share of profit	15,437	16,607	46,101	
Capital expenditure	8,839	8,454	25,829	
Dividend		8,731	496	
Loan levy refund (1976)			496	
DIVIDEND: A dividend (No. 64) of 100 cents (62.22222c) per share was declared on 7 December 1982 and was paid to members on 9 February 1983.				
CAPITAL EXPENDITURE: The unexpended balance of authorised capital expenditure at 31 March 1983 was R126.5 million.				
SHAFTS:				
No. 4 Shaft: The shaft was sunk 332 metres to a depth of 856 metres below collar.				
No. 4 Sub-Vertical Shaft: The hoists have been commissioned and work is proceeding on the provision of services to the levels in preparation for development.				

DOORFONTEIN GOLD MINING COMPANY LIMITED				
ISSUED CAPITAL: 10,000,000 shares of R1 each, fully paid.				
	Qtr. ended 31/3/1983	Qtr. ended 31/12/1982	9 months ended 31/3/1983	
OPERATING RESULTS:				
Ore milled (t)	366,000	366,000	1,098,000	
Gold produced (kg)	2,402.4	2,467.9	7,494.3	
Yield (g/t)	6.6	6.7	6.8	
Price received (R/kg)	16,165	15,541	15,282	
Revenue (R/t milled)	106.41	104.98	104.37	
Cost (R/t milled)	60.28	58.78	59.37	
Profit (R/t milled)	46.13	46.20	45.00	
Revenue (R000)	38,947	38,573	114,006	
Cost (R000)	22,083	21,513	65,189	
Profit (R000)	16,864	17,060	48,817	
FINANCIAL RESULTS (R000):				
Working profit: Gold	16,864	17,060	48,817	
Net sundry revenue	2,889	3,005	8,958	
Profit before tax and State's share of profit	19,753	20,065	57,775	
Tax and State's share of profit	6,415	5,331	18,587	
Profit after tax and State's share of profit	13,338	14,734	39,188	
Capital expenditure	7,478	8,636	22,007	
Dividend		8,000	8,000	
Loan levy refund (1976)	1,020		1,020	
DIVIDEND: A dividend (No. 52) of 80 cents (45.38494c) per share was declared on 7 December 1982 and was paid to members on 9 February 1983.				
CAPITAL EXPENDITURE: The unexpended balance of authorised capital expenditure at 31 March 1983 was R110.8 million.				
SHAFTS:				
No. 3 Shaft: The shaft was sunk 242 metres to a depth of 1,383 metres below collar.				
No. 3 Sub-Vertical Shaft: Raising of the section of the shaft between 33 and 35 Levels is in progress, and excavation of the chambers for the main winch, rock winder and shovels is continuing.				
No. 3 Sub-Vertical Ventilation Shaft: The shaft was sunk 120 metres to a depth of 142 metres below collar.				

On behalf of the board
C. T. Fenton
P. R. Jamieson } Directors

11 April 1983

VLAKFONTEIN GOLD MINING COMPANY LIMITED				
ISSUED CAPITAL: 6,000,000 shares of 70 cents each, fully paid.				
	Qtr. ended 31/3/1983	Qtr. ended 31/12/1982	9 months ended 31/3/1983	
OPERATING RESULTS:				
Gold:				
Ore milled:				
from surface dumps (t)	82,320	108,843	283,587	
from outside sources (t)	112,680	85,157	282,403	
total milled (t)	<u>195,000</u>	<u>195,000</u>	<u>576,000</u>	
Gold produced (kg)	254.2	230.7	749.5	
Yield (g/t)	1.3	1.2	1.3	
Price received (R/kg)	16,302	15,422	15,522	
Revenue (R/t milled)	2134	1628	1938	
Working cost (R/t milled)	10.6	10.6	10.6	
Rent purchased (R/t milled)	3.64	2.88	3.30	
Profit (R/t milled)	<u>6.37</u>	<u>4.80</u>	<u>5.72</u>	
Revenue (R000)	4,161	3,565	11,423	
Working cost (R000)	2,810	2,067	6,224	
Rent purchased (R000)	779	592	1,953	
Profit (R000)	<u>1,242</u>	<u>536</u>	<u>3,296</u>	
FINANCIAL RESULTS (R000):				
Working profit: Gold	1,242	536	3,296	
Net sundry revenue	499	546	1,565	
Profit before tax	1,741	1,482	4,861	
Tax				
Formula tax	908	627	2,419	
Non-riding tax	135	141	382	
Excess recomputations tax	46	4	51	
Profit after tax	<u>654</u>	<u>650</u>	<u>1,989</u>	
Net recomputations of surface capital expenditure				
	93	19	104	
Dividend		900	900	
Loan levy refund (1982)	30		30	
DIVIDEND: A dividend (No. 76) of 15 cents (R1.8221/kg) per share was declared on 7 December 1982 and was paid to members on 9 February 1983.				
CAPITAL EXPENDITURE: There were no capital expenditure commitments at 31 March 1983.				

TECHNOLOGY

HOW HERTZ SAVES MONEY ON COMPUTING

Bureau business still blooms

BY ALAN CANE

HERTZ EUROPE, a significant part of the world's largest car rental group, wants to save money on its computing. The UK's largest computer services company, wanted to break into new markets.

The result was an elegant variation on the facilities management theme which is now saving Hertz, at a conservative estimate, more than £250,000 a year, and which has opened Scicon's door to the lucrative IBM bureau business.

Facilities management (FM) has become a speciality for some computer services organisations, notably Hoskyns, which claims more FM deals in the UK than any other company.

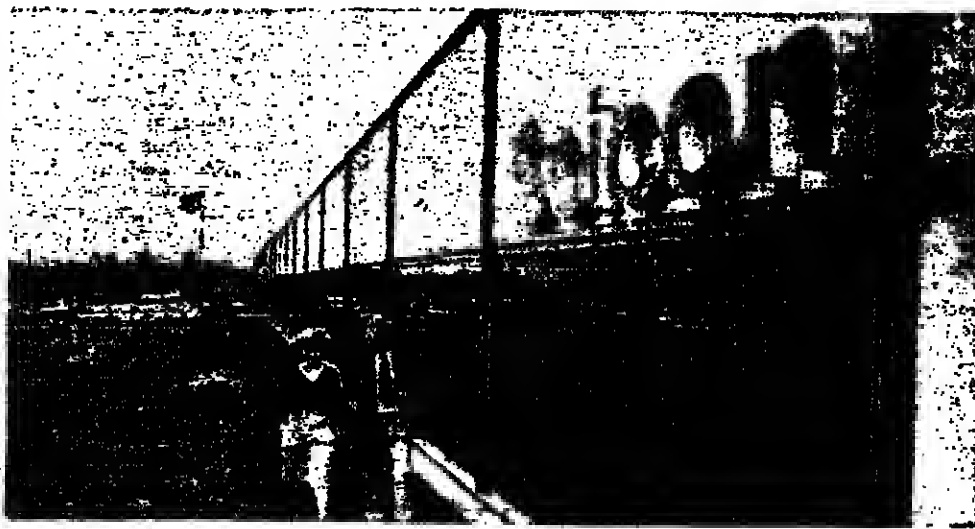
As practised by these companies, it usually means, for a fee, taking over the running of a client's computer centre. The computer remains the property of the client. Full responsibility for the computer and its performance rests with the computer services company.

The Hertz deal is quite different. The computer it is using — an IBM 4341 medium-sized mainframe — is owned by Scicon and operated from its Milton Keynes computer centre. The software which runs on the machine belongs to Hertz — written by the rental firm specifically for its own corporate needs.

Scicon is, in fact, managing Hertz's software facilities; in other respects the deal is a pure computer bureau operation — but at a fixed price.

What makes the deal of special interest is Hertz's size — its revenues were more than \$1.5bn in 1982 — its almost total dependence on computers and its sophistication in data processing.

Its director of management systems and services for Europe, Mr Jonathan Chapple, formerly management services director



for Thomas Cook, is one of the new breed of systems supremes who wears the hats of data processing director and telecommunications director simultaneously.

Its world-wide data processing centre in Oklahoma City houses two separate systems — an IBM operation for mass file storage and a Sperry operation for reservations. Two transatlantic lines run from the UK to Oklahoma City; the group is thinking of installing a third to reduce its vulnerability to system failure.

The company already makes extensive use of external computers. Modelling and analysis work is carried out on an Amdahl mainframe owned by the U.S. bureau NCSS. And monthly results from Hertz world-wide subsidiaries are consolidated over the Geisec Mark III computer network.

In Europe, the company operates a distributed computing system. Central accounting is handled by the Scicon IBM — each country has its own Texas Instruments minicomputer to carry out local processing.

The complication is that customers for car rental are billed in their country of origin, which means that the country subsidiaries have to operate a system called Euroswap — European debt swapping to reconcile their financial differences.

Why does Hertz need the central IBM? It has files on some 70,000 customers in Europe held on the 4341 and used to keep the U.S. customer

file — with its 8m individual records — up to date. It also handles centralised customer accounting — the heart of the Euroswap operation — and so runs the local receivables system for Hertz.

Mr Chapple says: "The name of the game is receivables control. This is what it is all about. If you do it well, you are well ahead — do it badly, and you are dead."

Hertz used to use a bureau service from BOC Datasolve as it was then (it has since been taken over by Thorn EMI). The problem was how to keep a lid on costs as volume of transactions expanded.

At the same time, Scicon, which had operated a bureau business based on Sperry machines for many years was looking for a way into the IBM market place — where most of the UK's bureau business is to be found.

It offered Hertz dedicated use of an IBM 4341 for a fixed fee of about £300,000 a year if the rental company would allow it to use and sell extra capacity on a bureau basis.

Why did Hertz accept? First, the price, Mr Chapple points out: "It is simply very cost-effective. We are paying about half the cost of the other services for unlimited use of the machine."

Second, it frees Mr Chapple and his (quite small) team from the chores of day to day operations management to concentrate on strategic issues and planning.

"This philosophy at Hertz is

that resources should be channelled into getting the systems right and planning for the future. That is a full-time job without all the hassle of running a computer centre."

Third, it offers security which Hertz could not have provided without major changes. Scicon operates all the security measures expected of a large bureau including protection against lost or misdirected files through to defences against terrorism.

And fourth, it fitted Hertz's data processing strategy. Usually these days, the company is centralising, bringing applications that are presently running on the country IT units back onto the mainframe, starting with France, Hertz's first subsidiary in Europe.

"We decided to distribute mini computer power in 1978," Mr Chapple says. "When IBM launched the 4300 series it knocked such holes in the arguments for distributed processing that we decided to think again."

But there is still a need for local processing when the customer brings the car back and wants to see an itemised bill.

Hertz uses small Olivetti TC800 microcomputers in a system called Autocheck which assimilates the rental agreement, adds the rental data and computes the final bill — all on a video screen so the customer can check every detail. Eventually these will be used to put transaction details directly into the system.

VIDEO AND FILM BY JOHN CHITTOCK

Soccer vandals look to TV

IF TOP league soccer vanishes from British television screens on Saturdays and moves on to the video screens of pubs on Mondays — how a prospect — the football hooligans will have a new way of inflicting damage.

The screens used in many video projectors are usually finished with a metallised surface, highly susceptible to handling. Even conventional silver painted screens are not resistant to beer slops, and cinema managers all over the country can testify that the silver screen is a favourite target for all kinds of unsavoury missiles.

The closer proximity of a video screen in a pub will provide an inescapable temptation, no doubt. But if that is not problem enough, the screen-makers are forever conducting their own technical battle in improving the performance of screens.

An efficient cinema or video screen needs to be much more sophisticated than a white bed sheet suspended at the corners. Not only must it be free of wrinkles — which on the span of 100 ft found in at least one of the world's cinemas poses quite an engineering problem; it must be also a highly efficient reflector returning to the audience as much as possible of the original light from the projector.

Yet "reflector" is hardly the right word, because the screen surface must also diffuse the incident light in order to form an image, and disperse its light evenly so that every viewer in the audience sees a picture free of hot spots or dark corners.

With video screens there are additional problems. Most video projection systems use three separate images — red, green and blue — which converge in register on the screen to yield a full colour picture. If the geometry of the screen is not carefully matched to the installation, variations in registration may occur — causing colour fringing.

Video projection and the daylight use of tape/slide programmes has boosted activity in the development of screen technology. What everyone wants, of course, is a screen that will reflect back — evenly at all viewing angles — all of the light that the projector is throwing on it; but, at the same time, the screen must not reflect back ambient lighting from the rest of the room (a miracle achieved in some measure by using tinted

materials for the screen and highly directional reflecting surfaces).

Screen-makers thus have an extraordinarily difficult balancing act to perform. It is rather gratifying to put on the record that one of the world leaders in a British company — Harkness Screens — who are probably the biggest suppliers of cinema screens worldwide. From white painted screens to silver screens the company progressed in the past 50 years, to developing the Perlux plastic screen — with gain (viz. light collecting efficiency) comparable to a silver screen but without the severe fall off in brightness at oblique viewing angles that occurs with silver.

Problem

Recent activity in the cinema, however, has posed a problem for the Perlux screen. It is that word 3D again. The conventionally used system of 3D cinema projection — now undergoing a revival — relies on polarised light from the projectors (and Polaroid viewing spectacles). But the plastic surface of a Perlux screen has the unfortunate effect of depolarising the incident light from the projectors, so that cinemas using 3D must now install metallised (e.g. silver) screens.

Harkness have recently developed a new silver screen for this purpose. Spectral 2000, which they claim has the gain and angular characteristics of Perlux. This screen makes its own premiere on Friday May 13 in London at the premiere of the new film Friday 13th Part III.

An even bigger premiere for Harkness occurs in June with the opening of the National Museum of Photography, Film and Television in Bradford. This exciting venture will provide Britain not only with its first integrated showplace for the media, but also its first Imax installation.

Imax system

From Canada, Imax is the spectacular film projection system first seen at the Osaka Expo in 1970. It uses 70 mm wide film not uncommon to commercial cinemas, but in an horizontal configuration so that the frame size that is both higher and wider. The Imax projector likewise runs the film horizontally, thus yielding bigger, brighter and sharper pictures

than ever before experienced in the conventional cinema.

For Harkness, Imax has been good business, providing a demand for massive screens in specially built auditoria. The Bradford installation is a little smaller than many — 62 ft wide by 45 ft high. On raked seating, this will almost envelop the audience with a cinematic experience that makes dim, fuzzy video projection seem very crude indeed.

The problem with video projection is that, however efficient the screens, they can never provide a picture brighter than the original light source in the projector. In most video systems, this light source is a cathode ray tube — as in a domestic TV set; and cathode ray tubes have severe limitations on how hard they can be driven to yield brighter pictures (the picture quality also suffers in consequence and the level of X-radiation can rise to unacceptable levels).

Better design

It is probable that no more efficiency can be squeezed out of the video screen, and the only scope for improvement is in the design of the actual projectors. The superb Eidophor, which costs more to buy than a small fleet of Rolls-Royces, long ago showed one answer by abandoning the cathode ray tube — using instead a very elaborate liquid refracting system, controlled by the TV signal, to modulate high intensity light sources.

This Swiss system could be challenged soon by a small British company — Dwight Cavendish — who have developed a video projection system based on the modulation of a laser beam. A single ion laser passes through a three-way beam splitter — where each path is separately modulated and coloured with the appropriate red, green and blue signals — before recombining as a single, full colour beam.

This beam is projected on to the screen, at appropriate intensity, in a scanning pattern which reconstructs the original TV picture. The system could promise very bright, high resolution pictures so that video projection can at last seriously compete with the film projector. No doubt it will stimulate new ideas for screen surfaces — so the future for companies like Harkness could be bright, big, wide and silver-lined.

Sawing

Wood cutting

FORESTOR, the Hampshire company specialising in the design and manufacture of equipment for wood cutting, has designed a tractor mounted sawbench for ripping or cross cutting logs. Details of the unit which costs \$519.50, are available from the company at Elmwood Lane, Hants (02562 2280).

Printer

Electrostatic plotter

VERSATEC, a Xerox subsidiary, has launched a full colour electrostatic plotter which it says is the first of its kind in the world.

Aimed at the computer graphics market the new model can produce a full colour A4 size drawing in eight minutes, or a black and white plot in less than 90 seconds. The resolution of the system is 40,000 points per square inch. More on 0653 4242.

Magnetics

High density data cartridge

DATA ELECTRONICS' 4 in magnetic tape data cartridge capable of high density 6400 bit per inch recording is now available from CPU Peripherals based at Shepperton, Middlesex. The model 30477 has a capacity of more than 17 megabytes of data and is aimed at the small business and data acquisition market.

The company says that it is the first fully tested and certified 4 in cartridge on the market. More information of the system is available from Walton on Thames 46433.

JAPANESE TECHNOLOGY

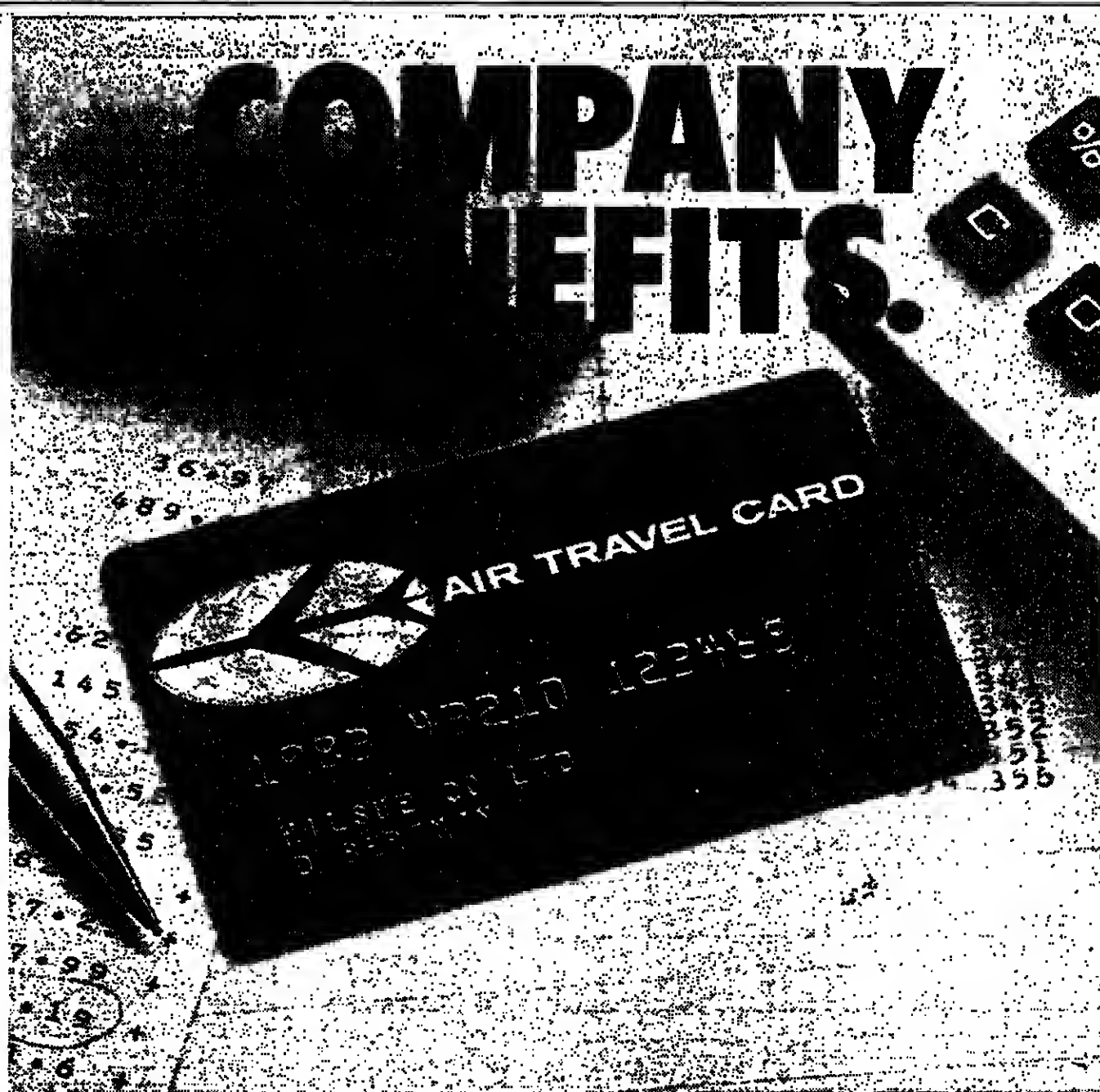
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THE MANAGEMENT PAGE: Small Business

EDITED BY CHRISTOPHER LORENZ

Funding for innovations at an early stage is becoming more readily available. Tim Dickson reports on two examples

U.S. technology opens the gate to wider markets

"THE £1.3m of new capital was admittedly a lot in anybody's book. But it seemed much easier getting hold of the money second time round than when I was trying to get started five years ago."

Looking back on his company's cash-raising exercise in the middle of 1982 Peter Barnwell's comments reflect as much the increased supply of venture capital in the UK since 1979 as the personal difficulties facing entrepreneurs without a track record.

But to be fair to those who backed him the progress of his company, Corintech, has been highly impressive and the project for which they recently made available new funds looks exciting to say the least.

Corintech is primarily a designer and manufacturer of thick film hybrid micro circuits—microchips known as "hybrids" because they bring together semiconductors and thick film technology.

Components are assembled onto a ceramic based circuit made with a screen printing process at the company's Fordingbridge site in Hampshire. This produces a tiny integrated circuit which, in spite of its size, performs all the functions of a standard printed circuit board. "Hybrids" are used in a wide range of industrial, telecommunications and military applications and are distinguished by their extreme flexibility and versatility.

There is, however, nothing new about hybrids and there are plenty of competitors—parts of Racal, Plessey and Marconi to name but three. The independent Corintech, on the other hand, has made its mark by producing short and medium sized runs which the large "in house" operations traditionally have been reluctant to take on. (The recession has forced some big suppliers to come down market in this respect but Barnwell is confident that they will disappear when the good times return.)

He explains, meanwhile, that Corintech's is a "custom" service—the emphasis is on solving a customer's problem, not supplying stock off the shelf.

The result has been growth in turnover from £200,000 in 1979 to £900,000 last year. But the problem, as the company's founder sees it, is that Corintech's fortunes rest on too narrow a product base—further rapid expansion in "hybrids" moreover, could jeopardise the current advantages of flexibility and a low fixed cost base.

The current plan is thus to establish a UK based operation making semi-custom integrated circuits of the gate array type—a worldwide market which Barnwell, whose previous careers include lecturing and an executive post with the quoted technology company, Eurotherm, sees expanding rapidly in the next few years.

The advantage of gate arrays is that they provide a standard array of circuit elements—anything from 60 to 1,800 plus "gates"—which can be applied universally and can thus be manufactured relatively cheaply in large volumes. Even a market penetration of 2 per cent of the estimated £250m European market, for example, will allow Corintech to meet its target of £5m of annual sales by 1986.

Although exciting, the project is bound to be high risk and involves Corintech licensing technology developed by California Devices, a San Jose Corporation also founded in 1978, and investing heavily in new equipment. The rewards should be the ability to service the sort of customers which his big competitors neglect with a far wider range of technology than Corintech can call on at the moment.

"What we do" explains Barnwell, "is take a standard array and design the interconnect which makes it do a job. We are now able to take on contracts which were not viable with a hybrid and, most important, we will be able to combine them with a hybrid to form small but powerful digital/analogous packages."



Peter Barnwell with the design of a gate array integrated circuit on a Calma design station, the investment in which was funded by Barclays Bank, Murray Technology and the Department of Industry

At the outset, adds Barnwell, "we thought there would be a certain amount of synergy (with existing hybrids), representing 30 per cent of our work. But so far it is proving greater than expected and a lot of existing customers are showing great interest."

The deal with California Devices and the investment in new equipment—most notably a Calma computer-aided design facility which is really a glorified electronic drawing board—was funded from three sources: Barclays Bank and Murray Technology, a Glasgow-based investment trust which made a £200,000 investment in Corintech in 1980, each contributed £50,000 while the Department of Industry put in £10,000 under the microelectronics industry support scheme.

"The only problem," recalls Barnwell, "was persuading people that the company needs as much as this. If we are lucky we won't but this is a very competitive business and we can't count on it."

Certainly Murray Johnstone, which manages Murray Technology, is pleased by the results so far. Judging by the valuations in the investment company's last annual report, Corintech is currently the star in the unquoted section of its portfolio. Appropriately enough too since Barnwell was invited in 1981 to sit on the board of Murray Technology.

Cutting loose from research

IMAGINE a high pressure water jet that rips through rubber like a knife through butter. Bear in mind too that its cutting edge is so ferocious—thanks largely to a cheap copper slag abrasive—that it will drill through reinforced concrete and a whole host of other tough materials besides.

Just such an invention is the basis of Fluid Engineering Products, a recently formed company which is an unusual partnership between the British Hydro-mechanics Research Association, an industrial research group, and English and Caledonian, a hitherto low key venture capital organisation.

FEP is at a very early stage of development—its prototype, for instance, is still being converted into a production model—but according to managing director Stuart Latta, assembly is expected to commence in June following the company's imminent move from the campus at Cranfield Business School, Bedfordshire, to nearby Milton Keynes.

The story of how FEP was formed offers an encouraging example of risk finance being harnessed to exploit the work of research scientists. Moreover, the project represents a shared ambitious departure from the BERA's normal practice.

Set up some 37 years ago, the BERA is an independent non-profit making body which concentrates on all aspects of fluid engineering research. It has 250 members covering a wide variety of industries but subscriptions at £500 to £1,000 a time account for a mere 2 per cent of total income.

The rest comes from the sale of the association's range of services (largely sub-contract R and D) and the fruits of general research funded by the likes of the Department of Industry and the British Technology Group (BTG).

"We live on our wits," observes Donald Bain, head of BERA's group marketing department.

"Normally when we find a new application we go to the BTG to raise some risk finance and apply for a patent. The chances are at this stage we have no idea whether the idea is technically or commercially viable so we build a working model to find out. If it seems to make sense we usually get a company to buy the licence and take the product on to the next stage."



Stuart Latta: "FEP has worldwide potential."

BERA has been working on high pressure jetting technology since the early 1970s but when around three years ago its staff developed a cutting head of such considerable power and effectiveness the idea started to take root that for the first time it might capitalise on the results itself.

"We came to the conclusion," explains Bain, "that there are a wide number of applications for this type of equipment. There is clearly a big safety advantage in being able to use water jets for cutting materials where there is the danger of an explosion."

Adds Latta, a former executive with Ransome Hoffman Pollard (now RHP), the bearings and electrical products manufacturer, who was hired to direct operations, "We believe that there is worldwide potential in the mining, foundry, glass and contracting industries, to name but a few, as well as in the emergency services field. There are very few companies in the high pressure water business dealing with all the customers we think might be interested."

With money the most immediate problem six venture capitalists were approached at the end of last year. Three made firm offers but English and Caledonian was chosen, says Bain, "because we felt that they had most to offer besides cash in the way of management support and advice."

E and C, which put up £180,000 for its 47 per cent stake in FEP and a further £70,000 in the form of a medium

term loan, was set up two years ago this month to find expanding private companies with the ambition and potential to get an Unlisted Securities Market quotation. Most of E and C's shares are held by pension funds managed by Gartmore but a significant stake is also held by Scottish United Investors, an investment trust.

Managed by John Parkin, an industrialist, E and C has now invested about half its £5m of available funds in five companies.

Parkin stresses that E and C neither demands fees nor expects dividend payments on equity stakes, preferring to wait until companies in its portfolio get a USM quotation.

There are, of course, many hurdles to jump before FEP reaches such dizzy heights. "The current strategy is to refine a machine with which we can first attack the contractors' market," says Latta, whose main task at the moment are recruitment and overseeing product development. "Having got a standard machine, which will sell at roughly £15,000, the idea is to develop specific applications which demand a higher engineering input."

On the move from Cranfield to Milton Keynes Latta remarks, "It is vital to be near our main R and D base but not actually on top of it. The important thing about our agreement with Milton Keynes Development Corporation is that there is plenty of scope to expand from our initial 5,000 square feet unit to bigger premises."

Fixed capital costs will be kept to a minimum with much of the machining sub-contracted to outside firms. "We will be a design, assembly and marketing operation," says Latta emphatically. "The BERA has used the prototype for one or two day demonstrations but our customers will want a product that works all year round."

Financial controls, of course, are vital to any new business and internal accounting procedures have been set up by FEP's part time company secretary—a retired accountant recommended by its financial advisers Thornton Baker.

E and C's Parkin, meanwhile, attends monthly board meetings, and says Latta, "he keeps us up to the mark on our timetable and asks some very useful questions."

In brief...

MANY SMALL businesses are beginning to recover from the effects of the economic recession, according to a recently completed survey. Two out of three businessmen polled said that they believed the next four months would be better for them and more than half forecast that turnover and profits would increase in real terms in the next half year.

The survey, carried out by Market Research Enterprises, also indicated improved prospects on the jobs front. More than a quarter of respondents said they expected to take on more staff this year. In contrast, only 8 per cent expected to have to cut back their workforces.

Around 75 per cent said they would like to see import controls imposed to aid the UK's industrial recovery. About the same number placed the blame for the UK being priced out of world markets on "excessive" wage increases, while about a half reckoned wage control made sound economic sense.

The survey, carried out for British Telecom's Enquiries, also revealed mixed feelings among small businessmen about the extent to which Britain had benefited from membership of the EEC.

ALTHOUGH the Companies Act 1981 allowed some concessions to help small companies in respect of information required for accounts filed with the Registrar of Companies, complicated new accounting rules were introduced for those full audited accounts required for shareholders.

Guidelines for implementing these accounting requirements are contained in a new publication from the Institute of Chartered Accountants in England and Wales called "Companies Act The Effect on Small Company Accounts." By using colour printing and example accounts, the publication illustrates the general appearance and content of accounts, together with information that may be omitted from "modified" accounts. Available from the Institute Publications Department, P.O. Box 433, Chartered Accountants' Hall, Moorgate Place, London EC2P 2BJ, price £5.95.

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David Vaughan



Cunningham's own performance is riveting, but the younger dancers also perform the piece with a clear sense of its seriousness and importance. *Quartet* shows the other side of the coin from *Gollopade*, first performed

This is one of those works of Cunningham's that do not yield up all their secrets at the first or even the second viewing, whereas the impact of *Quartet* is immediately felt and overwhelming.

movement in the war, the medium has actually served the power very poorly, while the power itself has been very subtle, on a deterioration conveyed to the soul and the body, and once the war was over it was the cinema which brought us the Vietnam News and the Hunter. Even those works, although studied in their emotional responses, were not too

Having so recently watched the dramatised reconstruction of America's "shamefaced" scramble out of Vietnam in 1975, during ITV's *The Last Day*, the irony in discovering that the Vietnamese nationalists' ideals were modelled on those of the American republic was somewhat desolate.

laughs and winks or the kids in Fame on television. They are talented but unoriginal, lively but phoney, sophisticated but shallow. It was unfortunate that their first show showed them in the worst possible light, as they should follow rapidly on the television broadcast of their first trip to London last year, for you could hardly fail to notice the similarities and over-programmed and lacking in spontaneity was an entertainment which pretended to be an unvarnished expression of the sort of youth

Debbie Allen, the rather bossy lady who treats the young proteges in the manner of a dog trainer breaking a puppy, hog too much of the spotlight with whimsy and the kids themselves are almost old enough to know better. They do not sing terribly, or play the guitar, and plunk away at the piano songs composed by Lee Curreri are lightweight, although it seems to have, along with Gene Anthony Ray, the strongest personality in the pack.

A day earlier, Wembley was packed for a much more intense experience, a Joan Armatrading concert. Joan Armatrading has a spine tingling voice and her love songs like "The weakness in me" are as haunting as echoes. Success has brought her to giant venues, and more confidence has produced an album with an emphasis on up-tempo rockers. She really has not the

'La France protège ses enfants': dated 1871

years earlier, and, by way of so-called "Pilgrimage," in astonishing contrast to the crisp, clean and elegant topographical illustrations of London, as in the work of Shottor Boys.

works, they are perversely
ingenious, and the figure of the
knight in full armour going
ap-frog over a stooping monk
— whatever its origins in
chivalry — compels mesmerised
attention. One aspect though that
the original drawings set right

Generally, such a comparison is not very relevant. Doré is not a satirist, nor does he lack the ferocity of Daumier's work, while his Don Quixote is as stagey when one remembers the bleak elemental in-

is absorbing and revealing continues till May 12. Thausly illustrated catalogue.

of his first half was like-uncompromising, driven a manic energy that swung fully between fierceness and s. The *Romanze* of the *Ringsschwank Aus Wien* exqu shore, e shy smile ed with the deepest melan-; the finale was brilliant, flying. Lupu seemed at a only where Florestan and us combine. In the Inter-

Dominic Gill

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PARIS

ITALY

Milan, La Scala: Carlo Fracci in *Sleeping Beauty*; the world premier of a new production of the opera, which chronographed

staged elsewhere in the Federal public. In the main parts Richard Salter and William Doo Edda Moser triumphs in Idomen Boris Godunov, a good production by Rodolph Sellner, features S. Bodo Wagner and Matti Takala.

Pilar Rieja: Internationally known flamenco dancer performs to the music of Bach, Corelli, Albinoni, Bocherini and the poems of Garcia Lorca. Grammy Arts, 138 E. 23rd

given at Covent Garden in its original language, returns with a cast of newcomers to their roles (including Robert Lloyd and Thomas Allen) and Bernard Haitink as conductor. The Don Pasquale revival, with Geraint Evans in the title role, shows

so this week Ein Maskenball a
ring Franco Bonisoli as Ricca
and Anna Tomowa-Sintow as An
ia. (351151)

Stuttgart Württembergisches Sta
theater: Stuttgart's Der Fliege
Hunden with Toni Kasper in

Volksoper (54324/2557): Der Graf von
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Tuesday April 12 1983

Mr Reagan's failure

THE REAGAN peace plan for the Middle East, never stood much chance of success. The failure of Jordan and the Palestine Liberation Organisation to agree to a joint approach to negotiations is largely the official obituary of a scheme in which most Middle East countries had ceased to believe. Even President Reagan himself has shown only sporadic enthusiasm for taking political risks in order to increase the chances of his plan's success.

The plan, as propounded last September, envisaged King Hussein negotiating with Israel on behalf of the Palestinians with the aim of securing autonomy for the West Bank and Gaza in association with Jordan. From the beginning it was rejected by Mr Menahem Begin, the Israeli Prime Minister. U.S. officials have accused him of delaying Israel's withdrawal from Lebanon and speeding up Israeli settlements on the West Bank in order to undermine President Reagan's plan.

The reaction of the PLO to the scheme was generally negative but more equivocal. Mr Yasser Arafat, the PLO's chairman, tried to keep his options open despite Israeli pressure from Syria and his own hard-liners. Just how far the latter are prepared to go was underlined on Sunday when Mr Issam Sartawi, a leading PLO advocate of dialogue with Israel, was gunned down while attending a conference in Portugal.

Weakness

But the fatal weakness in the Reagan plan was not the influence of the PLO hard-liners. It was rather the more general belief among Palestinians and Arab states that the U.S. is not willing to put sufficient pressure on Israel. For this reason King Hussein demanded that Washington should get Israel to agree to pull out of Lebanon and to freeze the settlements on the West Bank before he would join talks. Neither has occurred.

The PLO and the Arab states know that the balance of power is heavily in favour of Mr Begin. The Lebanese war last year proved the political weakness of the Arab world. The Gulf states are now frightened of Iran that they are of the Israelis. Egypt, the most powerful Arab state, is still on the sidelines of Arab politics.

A strategy for adult training

"OUR present system of training and associated education simply does not respond swiftly and flexibly enough to growing changes in skill requirements." Few if any voices will be raised in dissent to that statement by the Manpower Services Commission yesterday in its discussion paper on the desirability of improving the working skills available among the adult population.

The sentiment is one which has commanded virtually total agreement in Britain at least since the Crowther Report of 1959. Over the intervening quarter-century there have been several attempts to make the country's arrangements for training and associated education sufficiently flexible and responsive to deliver the skills required.

The hope in the 1960s was typically to achieve the desired end by governmental measures. The main outcome was the statutory establishment of a network of industrial training boards, each empowered to levy employers in its industry for funds. Most of the money would be redistributed as incentives in the form of grants to employing organisations whose training activities gained the board's approval. This approach has been reversed by subsequent Conservative governments which have successively dismantled the statutory machinery and returned the responsibility for training to the employing concerns themselves.

The commission's latest analysis of the problem is unusually frank — for a body representing central and local government and trades unions as well as employers — in admitting that neither of the approaches has succeeded. The document also acknowledges that the problem of ensuring a sufficiency of appropriate skills cannot be overcome entirely by training and associated education alone.

Employers often starve themselves of an adequate supply of the skills they need by restricting recruitment and training to people with high academic qualifications, even though these have been shown to be unnecessary for the achievement of competence in the work at issue. A similar effect arises from unions' restrictive practices. Neverthe-

Without heavy pressure from Washington there is no reason for Mr Begin to make concessions to the Palestinians or anybody else.

This much was obvious last September when President Reagan first put forward his plan. It was also clear that he would have to take the difficult decision to offend some of Israel's political allies within the U.S. if he wished to convince the Arabs that he was serious. He failed to do so and thus undermined those on all sides who wished to start negotiations.

Even so the PLO should have allowed King Hussein to start talks. It has little enough to lose as the murdered Mr Sartawi was fond of pointing out. He is reputed to have remarked ironically at the Palestine National Council meeting in Algiers in February that, if the PLO were to win one more victory like the siege of Beirut, then the organisation's next meeting would be in Fiji. He has paid the price for his realism.

Dangerous

With the demise of the plan there is a temptation to see the Middle East problem as returning to square one. In fact the situation is more dangerous than that. Mr Begin may well feel that he has tested Washington's will to put pressure on him and found it wanting. This could lead to a speeding-up of the settlement programme, if nothing worse.

It is, therefore, all the more necessary that with a Presidential election approaching, President Reagan should increase his pressure on Israel to pull out of Lebanon and to freeze the settlement policy. It was his persistent failure to give substance to his rhetoric which doomed last September's initiative. He asked others, in Israel and the Arab world, to take political risks he would not take himself.

Possibly Israel's supporters in Congress would serve to prevent any real pressure being placed on Mr Begin to change his policy. In any case the administration did not try very hard. In Israel and the Arab world the belief grew that the peace initiative was a cynical exercise and this reduced its credibility. For that President Reagan must bear much of the blame.

less, while such blockages have been removed only by the managements and unions directly concerned, the commission remains sure that it has a decisive part to play "through public intervention in the vocational education and training systems."

It is less sure, however, about what forms the intervention should take. Instead of building on previous experience with a programme for definite action, the document confines itself to appealing for the views of other interested parties on questions which take us back to the beginning. For example, should future strategy "concentrate upon developing a system of training and associated education for the medium term that will prevent problems in the future, or attempt also to deal with immediate problems caused by structural changes in the economy?"

That question would have been non-controversial even quarter century ago. The almost unanimous answer would simply have been: "Both." The only live issue for decades has been how the necessary improvements in work skills can be achieved.

To be fair to the commission, short-term questions such as what skills are now most needed and which training methods can best develop them are too intricate to be answered accurately by a central agency. It is therefore wise in this respect to seek advice from bodies more closely in touch with the problem while confining itself to broader tactical suggestions.

On the longer-term question of how training and education policy can guard against further deficiencies in the future, neither the commission nor the Government can plausibly claim a need for more advice. The steps required have been set out cogently, not least by the Government's Central Policy Review Staff.

May 1980. The only need for the political will to implement the long identified remedies including dealing the split by which education under the Department of Education and Science is treated as largely separate from the training activities which are the responsibility of the Manpower Services Commission.

THE Fujisaki Institute would not be out of place in a James Bond film. Fitted out like a luxury hotel and swarming with white-coated scientists, the laboratory complex is the idiosyncratic creation of an extremely wealthy and determined Japanese individual.

Like Dr No, Ken Hayashibara has breathtaking ambitions. The difference is that his technology is harnessed to humanitarian ends while his chances of success look far greater than those of Bond's evil adversary. His most immediate goal is to discover a cure for cancer using domestic hamsters.

That is not as fanciful as it may sound. The scientists at Fujisaki, situated a few miles outside Okayama in southern Japan, are on the point of beginning clinical trials of two substances — tumour-necrosis factor (TNF) and carcino-inhibiting factor (CBF) — either of which could provide a breakthrough in the treatment of cancer.

The Hayashibara Group, a century-old family dynasty of which Mr Hayashibara is president, is not strictly representative of Japanese pharmaceutical companies or of any companies anywhere for that matter. The family itself has a long philanthropic tradition and began its research into life science after the 19-year-old Hayashibara took over the reins of the company following his father's death from cancer in 1964.

The company does, however, exemplify the intensive research and development work being conducted within Japan in the life science field and the country's sudden emergence as an international force in pharmaceutical drugs, an industry which has traditionally been dominated by U.S. and European companies.

According to Mr Robin Gilbert of stockbroker James Capel, the Japanese pharmaceutical industry now accounts for roughly 20 per cent of all drugs under development in the world. A decade ago, he believes, the figure would have been no more than 1 per cent.

Compared with the giants of the industry worldwide, the Japanese companies are still in the second division. Only one company, Takeda, could claim a place among the top 20. Until now, the industry has been constrained by the domestic emphasis of their marketing and the distance which they have needed to make up in research. Increasingly, however, they are turning their attention to the international markets. If the strategy proves successful, the Japanese drug industry might rival that of the U.S. by the end of the century.

Growth on that scale would, however, necessitate dramatic changes within the Japanese drug industry itself. At present, the country boasts 385 manufacturers of ethical pharmaceutical drugs, with no single company accounting for more than about 5 per cent of the market.

The remarkable growth in numbers testifies to the speed with which Japanese companies

JAPAN'S LEADING COMPANIES

(% share of Japanese pharmaceuticals market)

Takeda	5.3
Shionogi	5.4
Fujisawa	4.7
Sankyo	4.1
Eisai	3.5
Taiho	2.9
Green Cross	2.6
Yamanouchi	2.5
Meiji Seika	2.5
Daiichi	2.5
Chugai	2.3
Tanabe	2.3
Kyowa Hakko	2.2
Toyo Jozo	2.0
Otsuka	1.9
Pfizer	1.7
Banyu	1.5
Toyama	1.5
Mochida	1.5
Bristol-Meyers	1.4

Source: Industry estimates

respond to the emergence of growth industries. Many of the leading forces in the sector have arrived there from industries which were perceived to be either mature or in long-term decline. Hayashibara itself started life as a manufacturer of starch and remains primarily a producer of sophisticated food ingredients.

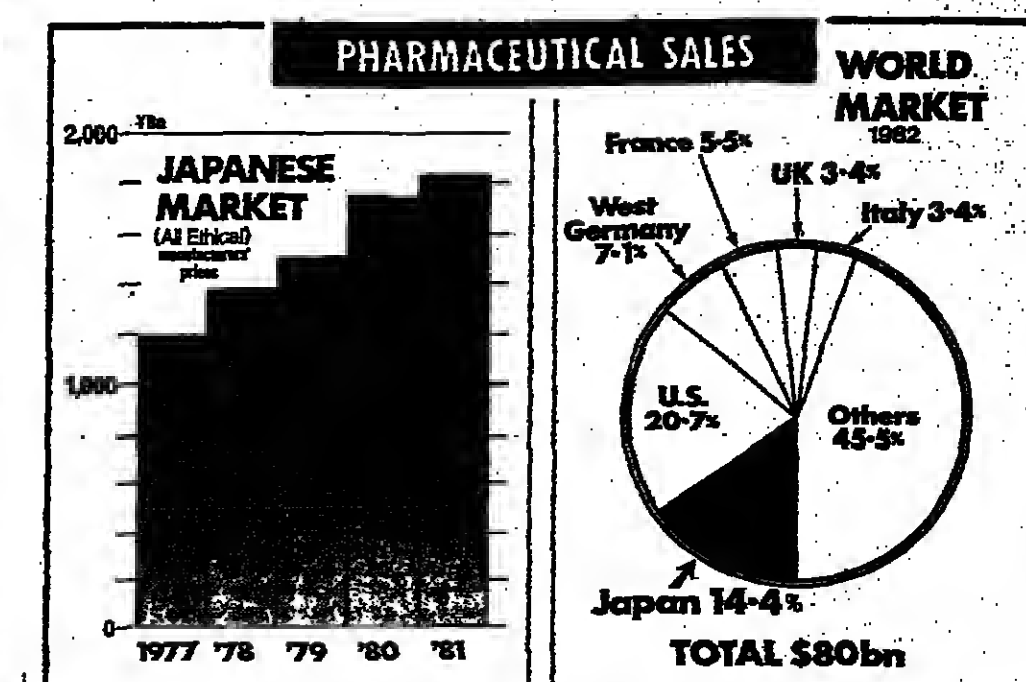
One of the most striking examples of diversification is provided by Ajinomoto, one of the country's largest food manufacturers. The company has applied its existing fermentation techniques to the area of biotechnology and is also entering the ethical drug market.

National health insurance covers virtually the entire Japanese population and pays for about 80 per cent of medical costs. The price of ethical drugs within the country is determined by the Government through a system known as the "reimbursement price mechanism." The therapeutic value of a new product is examined by reference to a comparable drug and its price is set at a premium, the size of which is determined by its apparent merits, to the existing product.

Rather than paying the com-

HAYASHIBARA has developed a strain of hamster which can be multiplied almost indefinitely. In the past hamster multiplication has been complicated by the tendency of mother hamsters to eat their young when disturbed.

The newborn hamster is incubated with human cells, which it kills. The hamster is then bombarded with virus and ethanol. The human cells release a number of bioactive substances which act as wounding haemostats. One such



Branco Redivo

pany directly, the Government reimburses the prescribing physician at the given rate and the physician himself pays the company — after taking a negotiated commission. In practice, the manufacturer would typically receive 65 per cent of the posted reimbursement price.

As a product matures, the reimbursement price is revised downwards towards the market price, limiting the profit margin for manufacturer, wholesaler and physician.

Besides placing great stress on the constant development of new products, which carry higher margins, this system leaves a great deal of influence in the hands of physicians. The Government is constantly revising the details of the machinery by which the reimbursement mechanism remains at the core of the Japanese drug industry.

The structure of the pharmaceutical industry in Japan tends to encourage fragmentation and to place great strains on R & D resources. These strains have, on a few occasions, produced appalling results. The most celebrated example is that of Nippon Chemphar, a medium-sized pharmaceutical company which last year

admitted submitting false data on no fewer than seven drugs in order to secure official approval.

More generally, there is a danger that Japanese companies will spread themselves too thinly in their research and development work. Yamanouchi, a middle-ranking but rapidly growing company in the sector, is concentrating research work in eight different areas, from antibiotics to biotechnology.

The group is already spending ¥8bn, or 9 per cent of sales, annually on R & D and expects the proportion to average over 10 per cent during the next five years. Yamanouchi's president, Mr Shigeo Morioka, is quick to justify this grassroots approach. He says it is important that research divisions are highly competitive with each other and, each year, to select two out of the eight areas for further heavy investment.

Mr Morioka wants to accelerate the learning process among Japanese research personnel and believes that U.S. and European companies have often concentrated on developing too narrow a range of products. Hoffmann La Roche, he says, was extremely successful in the

field of mild tranquillisers but waited too long before diversifying its research effort.

The Japanese strategy does have its drawbacks, however. Pharmaceutical companies in Japan pay corporation tax at an average rate of 65 to 70 per cent, well above the standard rate and roughly double that paid by U.S. companies. This partially reflects the absence of tax allowances for promoting and marketing costs but also results from the very modest tax shelter available for R & D work.

A more fundamental worry is that the pharmaceutical market within Japan will be unable to sustain the number of products which will flow from this research work. The domestic market is admittedly growing at around 10 per cent a year and the momentum will probably be maintained through the rapid ageing of the Japanese population. The proportion of the population aged 65 or over is likely to have increased from 7.1 per cent to 15.6 per cent from 1970 to the end of the century.

But because of its scattered approach to research, the Japanese industry may find that

THE HAYASHIBARA HAMSTER

substance is interferon, once highly regarded as a potential cure for cancer but now produced by several other companies, including Hayashibara, principally as an antiviral agent, with some likely applications in the anti-cancer market.

By varying the stimulants and developing new cell combinations through cell fusion technology, Hayashibara is able to extract a wide range of different substances from the hamster. Although these are secreted in minuscule quantities, the company is able to produce them on a commercial scale

simply by increasing the number of hamsters.

By the middle of this year, Hayashibara expects to be "farming" 50,000 hamsters, half the world population of laboratory hamsters, and sufficient to produce meaningful quantities of both CBF and TNF, its anti-cancer substances.

Hayashibara is by no means the only company working on TNF. It was first developed in the U.S. in the mid-1970s but no method of effective and economic purification and production has until now been found. CBF, probably the more promising of the

two, in Hayashibara's view, several ten-thousandfold more powerful than interferon, is unique to the Japanese company.

The main threat to the commercial application of the two substances is contamination from the hamster cells and, carcinogenic cells present in the hamster. But Mr Masahiko Kurimote, the director of Fujisaki Institute, has so far found that the present contamination matter is too small to measure. In theory, at least, both substances could be on the market by the mid-1980s.

Men & Matters

High cards

When people mention the Hudson Institute, the word of futuristic boffins on the Hudson River, New York — they are thinking usually of some new nuclear weapons strategy which is being devised for the Pentagon by Dr Herman Kahn and his band of strategic thinkers known to some as "Herman's Hermits."

But at a lunch in London yesterday American Express revealed that it recently asked the Hudson thinkers to come up with a look at the financial services industry in America.

The result is a weighty study which takes the "American Express" that will do nicely" trade into the realms of sociology.

It appears that the postwar baby boom will soon affect the credit card business. Harry Freeman, a senior Amex executive, says it is already beginning to change the demographics which govern America's consumer business.

The Hudson Institute study comes up with some interesting prose for its client: "The youth generation that brought vigour to the culture of the 1960s, and showed its neo-orientation in the 1970s, is maturing in the 1980s and again is having an enormous influence on the values of society."

What all this means is that the credit card holders of the future will be choosier people. Freeman says, "Our research confirms that high interest rates have been harnessed into the psyches of our customers forever." He says we are now living in a society where customers shop around for lower interest rate loans.

Apparently the financial services industry is also looking hard at the divorce rates. It has declined during the recession, thus materially altering strategic calculations for the financial services people.

The boffins in this growing industry now intend to spend more time focusing on the "hard" leisure classes, which, according to the study, are those 1980s hippies who now find themselves squeezed into pintripes.

Gold stars

Finding it difficult to predict the price of gold? Then consider this.

The chairman of gold mines managed by Gold Fields of South Africa, through call controlled by Consolidated Gold Fields, have received a letter from a U.S. investor asking them to supply the date and place of incorporation of their companies, as well as the time of day when they are closed.

The investor writes that he uses several analytical tools to select his share portfolio — including astrology.

Pets policy

Lloyd's of London is undertaking a risk that may help to brighten its image with the British public — it has agreed to cover the bills for the psycho-analysis of dogs.

Pet Plan, the company which insures more than 50,000 cats and dogs, can now pass on the wacky pets of its policyholders to the three or four animal psychiatrists who attempt to cure dogs of anti-social behaviour. The knock, apparently, is to wipe the animal's brain clean and start again with the orders. The British might be animal mag but they do not fall over themselves to insure their pets. There are only around 100,000 policies taken out to cover things like vets' fees though the cat and dog population is estimated at around 10m.

Patsy Bloom, who runs Pet Plan, has made a good enough living out of it, however, since she began the business in 1976.

Turnover this year could reach \$1.5m.

She has just opened in the U.S. and has already received her highest-ever claim. The third best German Shepherd in the country has passed away in transit and Pet Plan stands to console its owner with \$14,000. In the UK most of the policies are for German Shepherds for a £20 a year premium, but there is another German Shepherd which carries a £8,000 value tag on its collar.

Closed shop

Jersey people wanting to shop at the electrical store Curry's will have to make a 50-mile round trip to the neighbouring island of Guernsey.

Curry's has been rebuffed in its attempt to add a Jersey branch to its 515 UK retail outlets on the grounds that the island can get on as an economic unit without the benefit of another electrical store.

The chain store group has failed to pass the stringent tests to open a new business on the island even though it has promised to employ local people.

Curry's paid £300,000 for a building near St Helier's main shopping centre expecting that there would be no more difficulty opening on Jersey than there has been some years ago when it set up a Guernsey branch.

But the chain store did not bargain for Jersey's Regulation of Undertakings and Development Law. This powerful piece of local legislation introduced eight years ago gives the authorities control over the opening of new businesses, particularly those put up by firms from outside the island.

The original purpose of the law was to slow down immigration by ensuring that not too many new jobs were being created on an island which

measures only nine miles by five miles at high tide, and is already overcrowded.

But the main criterion these days is whether a new business from "outside" is economically worth having in terms of the Jersey economy.

To its annoyance Curry's does not qualify.

Up to the mark

An imperturbable figure amid the ups and downs of big business, Barry Lane who has been selling the products of Otis Elevator (UK) for over 20 years.

He recently logged his 1,000th sale. International insurance brokers, Sedgwick Group, has figured in one of his biggest deals: 15 escalators sited in an atrium will be a feature of its new head offices in Buckle Street in the City, the first such installation undertaken in Britain.

But Lane still talks of one order that got away. It is a tradition of the Household Cavalry that on dining-in nights the adjutant rides into the mess on his horse. When the Hyde Park Barracks were being built in the 1860s it was planned to give the officers' mess commanding views over London and there was talk of installing a lift big enough to take a man on horseback up to the top floor. Lane quickly demonstrated the feasibility of such a project, but the War Office shied away when told how much it would cost.

Phrased out

Did you hear about the Red Indian squaw on an American reservation who swag husbands periodically? They call it passing the buck.

Observer

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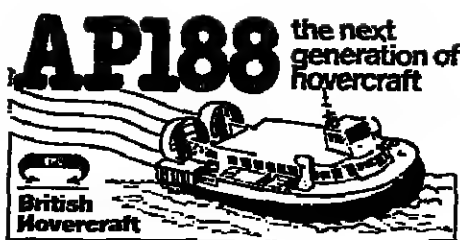
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FN omits dividend as net income tumbles

By Paul Cheeseright in Brussels

FABRIQUE Nationale Herstale (FN), the major Belgian arms manufacturer with substantial sporting goods and industrial equipment interests, is passing its dividend for 1982. Net income has tumbled to Bfr 8m (\$166,000) from Bfr 102m in 1981.

The immediate outlook is unpromising. Results this year are expected to be much the same, with recovery apparent only in 1984 and 1985, FN said yesterday.

The group paid a dividend of Bfr 100 a share in 1981. This is a reversal to the situation of 1980 when five years of profits growth and high dividend payments were checked by a slide into loss.

The only area of growth likely this year is in research and development expenditure, which is budgeted at Bfr 530m, or 20 per cent more than last year. But investment will be down at Bfr 400m in 1982 and Bfr 392m in 1983. Bfr 812m in 1981 and Bfr 1.3bn in the year of 1980.

Over the last two years FN has cut its workforce by 11 per cent to 9,000, but of this total between 25 and 60 per cent are on short time. Only one part of the group's activities, ammunition, has remained unaffected.

Total sales of the group last year, at Bfr 22.8bn, fell just short of the expected Bfr 23.2bn. This year the company expects sales of Bfr 23.8bn, a figure which, once discounted for inflation, suggests a static performance.

Despite extensive diversification in recent years, FN is dependent for nearly 40 per cent of its sales on weapons like machine guns and rifles. Although the demand exists, the ability to pay for them has waned.

Many FN sales are in the Third World, where balance of payments and debt problems have become particularly acute.

But the same problem, from FN's point of view, spreads into its aeronautical engines division, which makes jet engines for the F16 fighter aircraft in line with an association agreement with the U.S. manufacturers, General Dynamics and Pratt & Whitney.

The number of F-16 sales is lower than FN expected, reflecting not only the financial problems of the Third World but the relative slowness of the arms build-up in Western Europe and the decision of countries like Spain to buy other aircraft.

Britain resists early cut in interest rates

Continued from Page 1

ply were growing at the top end of the target range set in the last budget. Private Sector Liquidity 2, the definition of money which includes deposits with building societies as well as with banks, grew at an annualised rate of about 17 per cent in the month.

The recent increase in house building starts, and the expected increase in industry's financing requirements when the recovery gets underway, could also lead to increased bank lending, and so put upward pressure on the money supply.

The bank and the markets may also hope to get a clearer idea of the trend of U.S. policies from the testimony which Mr Paul Volcker, chairman of the Federal Reserve Board, is due to give to the Senate Banking Committee today. They may also be waiting for Friday's U.S. money supply figures, which could show a seasonal surge.

The Bank of England's firm line, which it maintained for the whole of last week, is probably also part of an effort to re-establish control over the markets. The bank and the Treasury were both taken by surprise on budget day, March 15, when Lloyds Bank lowered its base lending rate by 1/2 percentage point to the present 10 1/2 per cent.

World Weather

	C	F		C	F		C	F		C	F
Algeria	22	72	London	18	64	Madrid	20	68	Paris	20	68
Amman	25	77	Lyons	16	61	Rome	16	61	Stockholm	23	73
Antwerp	18	64	Manchester	15	59	Sydney	26	79	Tokyo	20	68
Bombay	28	82	Norwich	15	59	Wellington	18	64			
Buenos Aires	24	75	Oxford	14	57						
Calcutta	28	82	Sheffield	14	57						
Cairo	24	75	Southampton	14	57						
Canton	23	73	Trondheim	14	57						
Cebu	28	82	Valparaiso	14	57						
Hankow	24	75	Washington	14	57						
Hong Kong	28	82	Wellington	14	57						
Kobe	24	75									
London	18	64									
Lyons	16	61									
Madrid	20	68									
Manila	28	82									
Moscow	14	57									
Mumbai	28	82									
Nairobi	24	75									
Rangoon	28	82									
Reykjavik	14	57									
Rio de Janeiro	24	75									
Singapore	28	82									
Sourabaya	28	82									
Taipei	24	75									
Tientsin	24	75									
Yokohama	24	75									

Most oil companies 'accept BNOC price'

By RICHARD JOHNS IN LONDON

THE British National Oil Corporation (BNOC) yesterday announced that its proposal for a \$30 per barrel reference price for North Sea crude from March 1 had been accepted by an overwhelming majority of suppliers and customers.

Approval for April and beyond by most companies has been made conditional on the market continuing to support the new rate, which many of them considered too high when it was recommended by BNOC on March 30.

The firming-up of spot prices last week, however, has made it look far more tenable.

At the same time, Tricentrol, the UK independent, was understood to be withholding acceptance of the \$30.50 recommended for February retroactively by BNOC in the middle of that month.

Awaiting the outcome of the impasse between BNOC and Tricentrol, other suppliers, which never assented to this price and received the old rate of \$23.50, have hedged their acceptance with the condition that they should be left no worse off than any other producers.

The issue has been complicated by a legal wrangle over whether BNOC informed suppliers - as opposed to customers - correctly and

soon enough of its intention under various participation agreements.

Tricentrol claims that BNOC did not. Its position is supported by a number of other companies, including Britoil, which also complains of not being consulted about the proposal for February until after BNOC had had extensive discussions with customers.

BNOC is satisfied that it gave due warning and still evidently hopes for an amicable settlement. Under North Sea participation agreements any failure to agree can be resolved through arbitration by an independent expert.

Tricentrol if it decides to hold out, would probably be reluctant to take this course. Its position would not, on the face of it, be a strong one because any sale on the spot market during February would have been unlikely to raise much more than \$29 per barrel.

In this situation BNOC might have to resort to legal action to recover the difference, which is thought to involve \$800,000 to \$900,000.

BNOC expects the \$30 reference price to be maintained into the second quarter and is confident that market conditions will make this possible.

Qualifications - apparently made

by all the oil companies including British Petroleum - about its validity from April 1 onwards, should not threaten complications as great as those relating to objections to the February price.

Although the wording of participation agreements between BNOC and producers vary, the general principle embraced by them is that the price for any quarter can be reviewed in mid-quarter if there is a significant change in market circumstances.

After their big gains last week, prices on the spot market rose marginally. Brent was at \$28.80-\$29.85, giving mid-point of \$29.32, up 10 cents on Friday's level, while Arabian Light improved by 8 cents to \$28.80, compared with the official selling rate for the Organisation of Petroleum Exporting Countries' reference of \$29.

Nigerian Bonny Light, however, was down 8 cents to \$29.82 following its 80-cent jump on Friday.

Yesterday other oil companies decided to follow the lead given late last week by Shell and British Petroleum in cutting financial support for UK dealers, with the aim of raising the price of four-star petrol sold in urban areas to £1.79 (£2.73).

The higher rates will be charged by outlets of Esso and Mobil

Pegi lifts stake in Dunlop Holdings to 26%

By Charles Batchelor in London

PEGI, the Malaysian investment group, yesterday bought a further 6.5m shares in Dunlop Holdings, the troubled UK tyre group, taking its stake to 26.1 per cent.

This came only two weeks after Pegi bought 7m shares in the British company in a move which was believed to have been made for technical accounting reasons to give Dunlop associate status in Pegi's accounts.

Despite what Dunlop claims to be close links with the Malaysian group, which is part of the business empire of Mr Ghafar Baba, a former politician, the company was yesterday in the dark as to Pegi's motives for raising its holding further.

Asked the reasons, Mr Roy Marsh, Dunlop's corporate affairs director said: "It is a good question. They clearly want a significant stake and they must regard us as a recovery prospect."

"It is highly unlikely they will make a full bid. I can't explain why they have picked up another five per cent. They may go another point or two higher up 29.9 per cent."

Dunlop was informed of the purchase last week but was not told the reasons for the move. The company believes Pegi lacks the industrial management expertise to seek full control.

Dunlop conceded, however, that the Pegi purchase was "in a sense suspicious." Beyond 29.9 per cent Pegi would be required to make a full bid for Dunlop.

Pegi, and its majority shareholder, a company called Goodfield Plaza, built up their original 17 per cent holding in Dunlop in 1980 in some secrecy.

Rumours of a takeover bid prompted the UK Department of Trade to send two inspectors to the Far East that year to investigate. One London analyst commented yesterday that Pegi may be keen to establish a shareholding large enough to justify a seat on the Dunlop board.

After the initial secretive share purchases by Pegi, Dunlop reached a gentlemen's agreement with the Malaysians that they would not buy any more shares. This agreement has since been abandoned on the grounds that the two companies have got to know each other better. Dunlop's shares rose 5p yesterday to 50p, valuing the company at £80.5m (\$122.5m). It will announce its 1982 result later this month.

It returned to profit in the six months ended June 30 1982, reporting £4m pre-tax compared with the previous loss of £3m. Sales rose to £775m from £694m.

Sotheby's will fight £61m bid from U.S.

Continued from Page 1

company clearly expected the Americans to move on to a full bid. A meeting on Sunday between Sotheby's board of directors and Mr Stephen Swid and Mr Marshall Cogan, the major shareholders and senior executives of GFI/Knoll, failed to produce approval of an agreed bid.

GFI/Knoll is now offering 520p cash for each 25p ordinary Sotheby's share. This value the auctioneer at £80.6m and is a premium of 6.1 per cent over Sotheby's closing price last Friday and of 96.2 per cent over the price before the Americans began buying shares last year.

Sotheby's shares rose 35p yesterday to 530p, only narrowly above the offer price.

The bid is set to become a battle between a British company proud of its traditions and reputation but with disappointing levels of profits and two little known Americans who are making great efforts to establish their cultural credentials.

"We intend to acquire Sotheby's because we believe it has the potential once again to be the outstanding auction house in the world," Mr Swid and Mr Cogan said.

"From the start all our approaches and all our attempts to open a meaningful dialogue with the board have been rebuffed."

Sotheby's responded that "General Felt is well aware that this bid is wholly unwelcome to the board and to the great majority of Sotheby's professional experts."

The \$100m purchase price will comprise \$50m from GFI/Knoll and other private investors and \$50m in the form of a seven-year loan at two points above prime rate from a consortium led by Citicorp and including Crocker National Bank, Manufacturers Hanover and First City Bank of Dallas.

THE LEX COLUMN BTR wallpapers Crewe House

After lightly dousing market expectations of a further cut in base rates for much of last week, the Bank of England was obliged yesterday to pour buckets of cold water on the idea. With sterling so resilient, the bank's hard line must have more to do with the recent pick-up in bank lending - and particularly in home loans - together with the confused state of Government accounts at the end of the financial year.

BTR

BTR has had enough of trawling around the City, picking up Thomas Tilling shares by the handful. Yesterday, it was back on familiar territory, wheeling out a full offer which, as expected, is heavily geared towards paper.

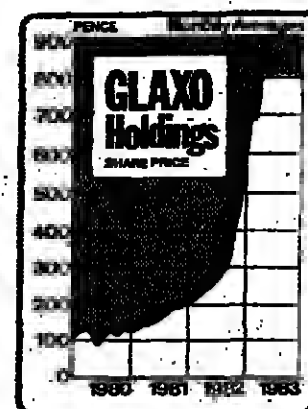
The cash terms are worth 10p more per share than the dawn raid price of 175p and the paper offer would, at last night's value of 418p for BTR shares, leave Tilling shareholders with 198p of BTR equity. Even after having the bulk of the cash offer underwritten, heavy acceptance of the cash alternative might push the combined group's net debt to around 70 per cent of shareholders' funds, so BTR is obviously going to plug its equity offer which itself would drive capital gearing up to about 65 per cent.

But the financial ratios are hardly BTR's greatest worry. Last week's unsuccessful raid gave Tilling an additional week with which to prepare its ground and to initiate the hard-nosed management which will provide a far more effective defence against the BTR offer than arguments about synergy or continuity.

BTR must remember only too clearly its failure to secure control of Bestobell, where a tight early offer gave its target the time to base up central management and drive the share price beyond BTR's horizon. This time, BTR has produced a very straightforward bid which, on the basis of Tilling's recent performance, places a realistic value on the company. But BTR still has a host of obstacles to overcome before it gets its foot in the door of Crewe House.

Glaxo

It is a measure of Glaxo's new reputation that after yesterday's gain, covering the second half of 1982, the shares were marked down 60p to 810p. Pre-tax profits have risen



52 per cent to £20.3m, and by slightly more on stripping out exchange gains on net current assets and property profits in the comparable period, so the pace of growth is being comfortably maintained.

Volume has again been the key to the improvement. Non-wholesale turnover has risen 24 per cent, with price increases accounting for only a small proportion of the gain. Currency translation gains have been worth £2m, while the improvement in export margins has been limited to the last two months. The fall in sterling, since November should, however, provide a significant boost to profits in the current half.

About half the volume increase may have been accounted for by the new anti-ulcer drug Zantac, which has produced possibly £10m or £15m of profits against nothing in the corresponding period.

Other areas of strong progress have been the antibiotic Zinacef and the heart drug Transdane, both of which have been benefiting from recent launches in Japan.

The conversion of most of the convertible stock has produced net cash in the balance sheet and a turnaround into net interest receivable of £1.8m - boosted by a write-back of gilt-edged provisions. The outcome for the year may be in the region of £300m, against £133.6m, while the prospective yield is 1 1/2 per cent.

Sotheby

The clash of styles involved in Knoll International Holdings' bid for Sotheby's Parke Bernet would have graced the pages of a Henry James novel. The co-chairmen and 66 per cent proprietors of the private U.S. company have presented themselves

before the British establishment bristling with American museum chairmanships, only to be snuffily dismissed by Sotheby's management as a couple of felt manufacturers with ideas above their station.

But Mr Cogan and Mr Swid also have a reputation on Wall Street and it would be surprising if they had really launched a £50m cash bid for Sotheby's without first gaining some reassurance that staff defections were not going to turn such an expensive acquisition to dust in their hands.

The threat of such a mass walk-out looks more real than the possibility of a cogent defence based on Sotheby's recent financial performance. Pre-tax profits stayed virtually static for 1978-81, despite a doubled turnover. The next boom in the salerooms, which now looks under way, finds Sotheby's rebuilding a badly shaken profits base. Even assuming a recovery to past peaks of profitability by 1985, the 520p per share bid looks at least realistic, other things being equal.

Which, of course, they are not. The share price, closing up 35p yesterday at 530p, has doubled since the appearance of the U.S. bidders. But S.G. Warburg will be searching hard for the white knight clearly expected by the market who will pay even more.

Inmos

Few companies would be as confident as Inmos, which is contemplating raising private capital even as losses exceed revenues. In 1982 the company's deficit totalled £20.4m, including exchange losses, against sales of £12.7m. This performance has, not surprisingly, savaged the balance sheet, and even after an equity injection of £15m, net debt still represents 80 per cent of shareholders' funds.

The cash outflow in the current year, however, should be modest. Meanwhile the company has established design leadership in certain areas and won wide acceptance for its product among leading users. Its challenge now is to broaden its product base and build up volume output at Newport. With prices firming, revenues in the current year may head above £35m, bringing the loss down to the region of £5m. More to the point, the company may be able to boast a positive outcome by the final quarter, or shortly thereafter. At that stage it should be possible to draft a persuasive offer for sale document.



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U.S. missile scheme

Continued from Page 1

dubbed the midgetman, should cost a total \$18.9bn in fiscal year 1982 dollars over five years. By comparison, the so-called "dense pack" scheme of closely clustered silos for the MX initially proposed by Mr Reagan would cost \$22.9bn.

"Dense pack" with additional deceptive silos would cost the same over five years but significantly more thereafter. "Dense pack" with additional silos and an ABM system would cost \$27.9bn over five years, with substantial subsequent costs.

Mr Reagan is hoping that the recommendations will finally prove acceptable to Congress, with which

the commission has been closely consulting in their preparation. Congress has said that it will not allocate production funds for the MX until a suitable basing system has been agreed. Many Democrats, however, disapprove of the missile altogether.

Important support came yesterday from Dr Harold Brown, Mr Carter's influential former Defence Secretary and a consultant to the commission, who said that he backed the plan even though it was not perfect. He called for bipartisan support for the recommendations.

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Left to right: Stephen J. Ruffi, Executive Vice President, T. Mitchell Ford, Chairman and President, William C. Lichtenfels, Executive Vice President

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ENGLAND: Bostik Limited/The British United Shoe Machinery Company Limited/Farrel Bridge Limited/Pastener Group/Tucker Fasteners Limited/Sanco-Strong Limited/Emhart (U.K.)
FRANCE: Bostik SA/Manufacture Française D'Outils Métalliques, SA/Texon France, S.A./USM France, SA
GERMANY: Bostik GmbH/DOM Sicherheitstechnik GmbH & Company KG/Deutsche Vereinigte Schuhmaschinen GmbH (DVSG)/Emhart GmbH/Texon GMB. Technisches Zentrum der Bostik Gesellschaften/Tucker GmbH
HOLLAND: B.V. Verenigde Stoten-en Bouwbeslagfabrieken (V.S.B.)/USM Benelux BV
ITALY: ACMA SpA/Assistenza Tecnica Emhart Srl/Corbin Company/Texon Italia Srl/USM Italia Company
SPAIN: Union de Maquinaria Para Calzado
SWITZERLAND: Emhart Zurich SA/USM (Schweiz) AG

Statement of Mission	T. Mitchell Ford, Chairman and President Emhart Corporation c/o Peter Muccini: Brooker, Gordon Partnership 83 George Street London, W1H 5PL England		
	Dear Mr. Ford:		
	Please send me a copy of your Statement of Mission.		
	NAME	ORGANIZATION NAME	ADDRESS
	CITY	STATE	COUNTRY

INTL. COMPANIES

Trafalgar Housing warning prompts share suspension

BY ANDREW FISHER IN HONG KONG

SHARES WERE suspended yesterday in Trafalgar Housing, the Hong Kong group involved in property, mining and fish farming, after it said there would be no profit for the year just ended because of unspecified financial provisions.

The company, not connected with Trafalgar House of the UK, is also omitting its latest preference and interim ordinary dividends at an estimated saving of HK\$25m (U.S.\$3.72m).

Trading in the shares, which have fallen sharply in price over the last two years and are also quoted in Luxembourg, will resume tomorrow. Last night, the company said it had assured local stock exchange authorities that its net worth was not negative.

One of the group's most recent projects involves flats in neighbouring Macao. Hong Kong citizens have been invited to buy these with the prospect of also having the right to live in Portugal.

Doubts have arisen over whether the scheme will finally go through. Trafalgar Housing also has interests in U.S. oil wells and gold mine developments in California and Nevada, as well as other Hong Kong and Chinese property projects.

The company declined yesterday to state the size and nature of the 1982-83 financial provisions or to give any idea of results for the year. In 1981-82, net profits rose from HK\$147m to HK\$170m.

The Trafalgar shares were suspended at HK\$1.04, having been near HK\$6 in 1980 and 1981. It is believed the suspension was matched on the Luxembourg exchange, where the listing was sponsored in 1981 by Kredithank.

Stock market sources said the size and range of the company's development commitments, along with the relative lack of earnings, had led them to expect news of Trafalgar's problems for some time.

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BELGIUM	30.23.82	HONG KONG	28.38.26	OSLO	41.61.16
BERLIN (WEST)	29.09.13	LISBON	05.30.88	PARIS	05.02.00
BUSSELA	218.00.00	LONDON	528.32.51	SINGAPORE	338.08.09
COPENHAGEN	04.30.00	LUXEMBOURG	66.09.29	STOCKHOLM	21.77.27
DUBLIN	22.61.75	MADRID	40.45.58	STUTTGART	22.03.13
FRANKFURT	28.28.00	MILAN	345.23.89	VIENNA	54.11.88
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Scrip issue for Straits Trading

By George Lee in Singapore

STRAITS Trading, the major Singapore tin and investment group, is making a bonus scrip issue of two new shares for every 10 held which will raise its issued capital to S\$ 216m (U.S. \$102.8m).

The scrip issue follows the group's disclosure of a lacklustre performance for the year ended December 1982.

Group pre-tax profit went down by 9 per cent to S\$ 53m, but a sharp reduction in the tax charge by 33 per cent to S\$ 15.7m managed to lift group after-tax profit higher by 7 per cent to S\$ 37.5m. Group turnover declined by 3 per cent to S\$ 908m.

No reason was given for the poorer performance but it appears that the group has been hit by the problems besetting the tin industry in Malaysia—lower prices and demand and production quotas.

The group reported an extraordinary gain of S\$ 39.1m, compared with S\$ 71.8m in 1981.

Straits Trading has proposed a second interim gross dividend of S\$ 0.14 per share, making a total of S\$ 0.20 for the full year.

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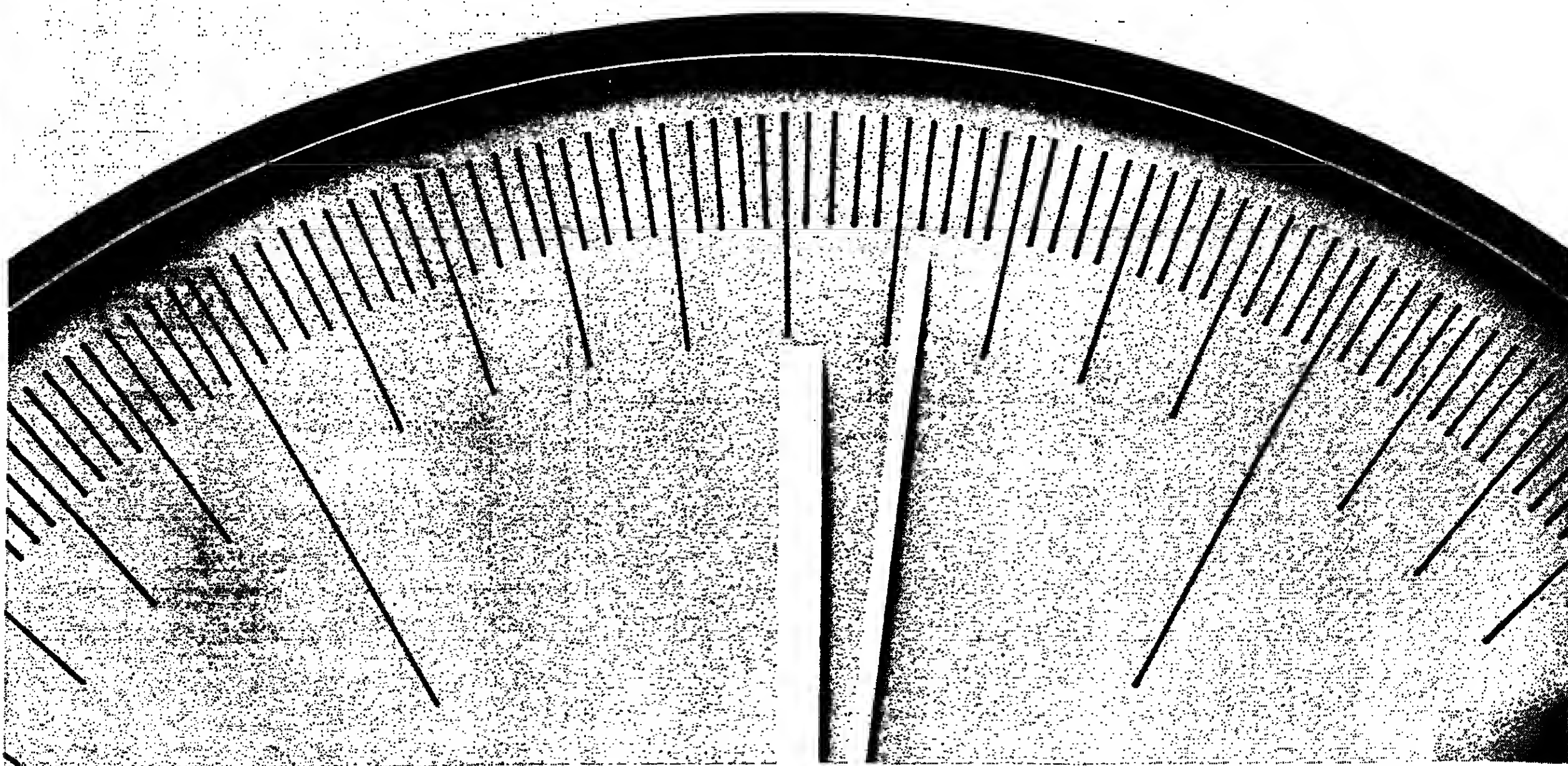
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UK COMPANY NEWS

Glaxo surges by £29.6m to £86.3m at halfway

WITH A rise in the trading surplus from £56m to £80.8m, first half taxable profits to December 31, 1982, of pharmaceuticals manufacturer Glaxo Holdings advanced by £29.55m to £86.3m. Sales were ahead by £97.5m at £504.4m.

Earnings per share are given higher at 14.3p (9.3p) undiluted and at 14.3p (9.3p) fully diluted and the interim dividend is being raised from 2.5p net (adjusted for one-for-one scrip) to 2.75p. Last year a total of 7p (adjusted) was paid from pre-tax profits of £133.44m and earnings per share of 23.4p undiluted and 23.1p fully diluted.

Turnover included £135.5m (£111.1m) from wholesaling by Vetric. Sales in the UK, excluding wholesaling, at £80m showed an increase of 44m. Overseas sales at £304m were £70m higher, at £117m, than in 1981, which was higher by £23m.

The directors report that during the period Zantac, the group's new anti-ulcer drug, was launched in a further 18 countries and is currently being sold in 31 countries. Translating has since the end of the period been launched in Japan and it, as well as Zantac and Zinacef, await approval in the U.S.

Glaxo's share of the profits of associates, in Japan, Nigeria and West Germany, at £3.7m was £1.1m higher in total than the corresponding figure last year.

The results of overseas subsidiaries have been converted into sterling at rates of exchange on the last day of each period.

The figures include all exchange differences except those arising on the conversion of fixed assets of overseas subsidiaries and associated companies.

DIVIDENDS ANNOUNCED

	Current payment	Date of payment	Corresponding dividend	Total last year
Anchor Chemical	2	June 4	2	3
Barton Group	1.4	July 2	1.4	2.4
Bryant Hedges	0.85	May 27	0.85	2
Clondalkin Grp.	3.75	May 31	0.15	0.15
Edinburgh Secs.	0.15	May 31	0.15	0.15
Fitch & Co.	2.8	June 17	2.25	7
Glaxo	2.75	June 17	2.25	7
J. Halsewell	1.25	June 3	1	2.4
Highland Dist.	0.97	June 6	0.88	2.88
Insurance Cpn. Ireland	8.14	May 26	0.55	1.21
Queens Meat Houses	0.61	July 4	2.65	5
Rugby Portland	0.9			0.9
TSW	0.3			0.3

Dividends shown pence per share net except where otherwise stated. * Equivalent after allowing for scrip issue. † On capital increased by rights and/or acquisition issues. ‡ USM Stock. § South African cents throughout. ¶ For 11 months. || Irish pence throughout.

which are taken to reserves. Changes in foreign exchange rates since the beginning of the financial year have had a material effect, the directors say. Overall they estimate that movements in exchange rates since July 1, 1982 accounted for some £3m of the pre-tax profits.

Apart from associates' contributions taxable profits included investment income less interest payable of £1.5m (£1.85m debit).

Tax took £23.1m (£22.5m) leaving net profits of £53.2m (£54.25m).

After minorities of £800,000 (£830,000) attributable profits came to £52.4m—a rise of 56 per cent over the £33.62m of the corresponding period last year.

Loan stock conversion in December 1982 added over 1m shares to the then issued capital.

As a result of the scrip issue in February 1983 there are now 385,952,522 ordinary shares in issue. The interim dividend amounts to 10.06m.

Sir Ronald Arculius, the former British ambassador to Italy has been appointed to the board as a non-executive director with effect from May 1, 1983.

Six months 1982 1981

Commercial sales 389,900 288,800

Net profit 53,200 54,250

Attributable 52,400 33,620

Payable. See Lex.

Rugby Portland expands by 26%

A SIMILAR result to that of the first six months enabled Rugby Portland Cement to return pre-tax profits of £23.54m for 1982, an improvement of some 26 per cent on the previous year's £18.6m.

As indicated in the interim report the final dividend is being lifted to 2.9p (2.65p), which makes a net total of 5.5p per 25p share, against 5p previously.

Group turnover for 1982 expanded from £144.57m to £185.71m and trading profits advanced by £3.79m to £22.55m. Respectively, these break down as to UK £135.82m (£124.02m) and overseas £30.19m (£24.55m) and £16.64m (£14.57m) and £5.82m (£5.89m).

On the outlook Lord Boyd-Carpenter, the chairman, says the lower level of activity in the building and construction industry in Western Australia seems likely to persist throughout 1983.

Tax rose sharply from £3.99m to £7.88m, mainly due to the return of a tax charge on Cockburn Cement following absorption of that company's investment credits and lower capital expenditure in the UK.

Minorities accounted for £11,000 (£211,000) and extraordinary debits £226,000 (£395,000).

Earnings per share were 12.9p (12.1p).

Rugby's creditable pre-tax profit advance has come at a time of increasing pressure on UK cement margins, caused by creeping cost increases and static domestic cement prices.

Against this background, Rugby's profit improvement resulted mainly from better capacity utilisation and cost benefits arising from an ongoing modernisation programme, which has involved a move to the more energy efficient semi-dry cement making process.

In the UK cement volumes increased by about 3 per cent—more than the industry average—on the back of an improvement in the building industry.

And the company has managed to maintain its market share at around 18 per cent of the total.

The important Australian subsidiary lifted its profits by 160 per cent above the strike depressed level of the previous year, providing a useful boost to group earnings.

This year's contribution could be negatively affected by the Australian economic downturn and the recent currency devaluation.

The U.S.-based cement interests remain small in pre-tax profits, but they could form the basis of further North American expansion.

The small dividend increase has done little to improve the market's rating of the share and the price, rose only 1p to 108p for a worse-than-average yield of 7.5 per cent.

Highland Distilleries improvement

HIGHER profits and an increased dividend have been shown by the Highland Distilleries Co for the first six months to the end of February 1983. However, the directors do not expect profits for the second half to be materially different from the £2.98m earned in the same period last year.

The pre-tax figure for the first six months rose from £2.78m to £3.58m on turnover ahead from £47.56m to £50.63m.

The increase in turnover and profits is due to higher sales of the Famous Grouse brand of Scotch whisky, both in home and export markets, say the directors. Profits have also been helped by a reduced interest charge—down from £288,000 to £179,000—resulting from lower borrowings.

Sales of matured whiskies were marginally up on 1982.

Fixed asset expenditure for the period increased from £284,000 to £285,000.

At the trading level profits moved up from £3.2m to £3.58m after depreciation of £245,000 (£240,000). After deductions for interest, there were associate profits last time of £5,000, income from investments edged ahead from £152,000 to £184,000.

Taxation—which represents a proportion of the estimated full year's charge—amounted to £280,000 against £282,000, which left net profits slightly ahead from £2.62m to £2.72m.

● **comment**
A shift in seasonal factors and substantially lower interest costs enabled Highland Distilleries to turn in a better than expected first half. Receipt of an EEC Cereal Fund payment, back-dated for a decade, of £29m sliced interest costs by some £200,000 in the full year. Much of the profits advance comes from the progress of Famous Grouse in the English market where a 14 per cent volume and 12 per cent price rise offset a 6 per cent decline in Scotland. Export business is around break-even but after heavy promotional expenditure is unlikely to be a serious contributor to profit before 1985. Overall the group is working well below capacity but not planning to mothball a second distillery despite a 21 per cent fall in volume of new fillings which has been hit by the weak U.S. market. Much, therefore, depends on the current year on FTA in the UK. Here a 6 per cent price increase was made in February and mature whisky prices have been firming in recent months. After allowing for the seasonal effect the outlook for the full year is around 26.6m pre-tax. Shares yesterday discounted much of the prospects with a 5p rise to 110 which puts the prospective p/e over 21. In the longer term one must question the growing dependence of the group on one product even if the long rumoured major materialises.

Borough of Sunderland issue

IN THE first major local authority stock issue for over six months, the Borough of Sunderland is offering £250,000 of loan stock redeemable in 2008.

The issue price and rate of interest will be derived from a gross redemption yield for the stock equal to 1.20 per cent and the gross redemption yield of 1.31 per cent Treasury Stock 2004/2008, as at 3 pm tomorrow.

The issue will be partly paid with 25p per cent payable on application, and the balance by September 7 1983. Interest will be paid on May 23 and November 28.

Application lists will open at 10 am next Thursday and deal-sealers are expected to begin on the following day.

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The margin over the comparable gilts is fractionally higher on the Sunderland issue, than on similar local authority stocks, and so the market consensus is not surprisingly that the pricing is attractive. Of course, £25m is not much compared with Government issues, consequent arguments about lack of market ability should not overlook the fact that corporations—lending for one—have in the past shown a tendency to buy back their own stock. There is always the nebulous possibility of the gilt market taking a tumble before dealing begins but with writing on Wednesday before pricing the risk of disaster for Sunderland is greatly reduced. An additional sweetener, particularly in the light of uncertainty about base rate movements, is the partly paid feature of the stock.

The underwriting has been arranged by brokers Springeour Kemp Gee.

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levels. Demand for new whisky is at a lower level than last year and no real improvement can be expected while surplus stocks hang over the market.

The net interest dividend has been declared at 0.97p—up on last year's 0.88p. Earnings per 20p share were given as rising from 4.1p to 4.4p. In the last full year, a total of 2.5p was paid.

At the trading level profits moved up from £3.2m to £3.58m after depreciation of £245,000 (£240,000). After deductions for interest, there were associate profits last time of £5,000, income from investments edged ahead from £152,000 to £184,000.

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UK COMPANY NEWS

Queens Moat Houses beats its forecast with £2.78m

RECORD PRE-TAX profits, up from £1.03m to £2.78m, are reported by Queens Moat Houses for 1982, and the figure comfortably beats the forecast of £2.5m made at the time of the group's acquisition of 26 hotels from Grand Metropolitan in April, last year.

Queens Moat thus doubled its share of hotels. It also acquired the Copdock International Hotel in Liverpool, and early this year acquired the Drury Lane Hotel in London. The group now operates 50 hotels, totalling 3,656 bedrooms, together with five public houses/restaurants. It is the board's intention to make further acquisitions, if appropriate, and to expand and improve the portfolio of properties.

Group turnover in 1982 soared from £15.41m to £38.15m. Trading profits, before rent and interest payable, were £4.2m against £2.94m. Rent costs, which were compared with £384,000 and interest charges were considerably higher at £238m (£1.25m).

After tax of £262,000 (£168,000), attributable profits climbed from £184,000 to £2,780,000. The final dividend is raised from 0.55p to 0.80p per share, a total of 1.1p (1.1p). Stated earnings per share, increased from 2.54p to 3.21p.

BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Such indications are not available as to whether the dividends are in arrears or whether the shareholders should be asked to vote on any last year's dividend.

Over the last 12 months Queens Moat Houses has increased the number of its hotels from 23 to 50, and boosted its workforce from about 1,400 to 3,150 today. But its lack of exposure to tourism, except in Stratford and York, means that it will not reap many of the benefits of a low pound this summer. Instead it is trying to fill up its hotels at weekends with conferences, which accounted for 20 to 25 per cent of turnover in 1982. The share price yesterday rose to 42p where the historic yield is 4.2 per cent.

FUTURE DATES

Investment: Anglo American Coal May 18
Portland Holdings Apr 11
Woodward Holdings Apr 11
Anglo American Invest. Trust Apr 14
S&S International Apr 14
Bentley Concrete Machinery Apr 14
Bentley Apr 14
Quince (Water) & Goodrich Apr 15
Highland Electronics Apr 18
Innospec Holdings Apr 19
Lac Refrigeration Apr 20
Liberty Apr 20
Lilly (F&D) Apr 21
Midland Industries Apr 21
Tubory Group Apr 21

Canadian setback hits Barton Gp. at year-end

THE EXPECTED downturn in year-end figures at Barton Group has been borne out with pre-tax profits falling from £1.03m to £400,000, which included second half profits of £244,000 against £272,000.

The final dividend is unchanged at 1.4p out for a same-again total of 2.4p.

Turnover of this holding company with interests in tubing and foundry, industrial services and engineering, fell from £40.27m to £37.57m, and trading profits were lower at £1.39m compared with £2.15m.

The directors say that UK trading profit was similar to that achieved in the previous year, but that the unparalleled recession in Canada has gravely affected overseas figures, where there were losses of £278,000 against profits of £402,000. There are now distinct signs, however, of improvement in Canada.

The pre-tax figure was after interest charges of £1,011m (£1.1m) and associates profits £28,000 (£4,000 loss). There was a tax credit of £288,000 (debit £208,000).

There were extraordinary debits of £1.69m (£703,000), which comprise the cost of closures and major restructuring. Stated earnings per share fell from 3.37p to 2.72p.

James Halstead jumps by 68%

A JUMP of 68 per cent in pre-tax profits from £612,572 to £1,030m has been shown by James Halstead Group for the half year to the end of 1982. The accounts include a loss of about £200,000 from Averoy Travel, which the directors say was anticipated.

The interim dividend has been effectively lifted by 25 per cent. After earnings per 10p share were given as rising from an adjusted 2.85p to 4.71p, the net interim dividend, has been declared at 1.25p, which is equivalent to a rise of 25 per cent after taking into account a one-for-four scrip issue last year.

In the last full year pre-tax profits amounted to £1,38m so turnover of £22,02m, and the total payout was equivalent to 2.4p.

For the half year under review turnover of this maker of PVC floor coverings, leisure products and waterproof clothing moved ahead from £9.48m to £12.91m.

On February 4 this year the company acquired the ear-camping business of Wigwam International Holidays for an initial sum of £300,000. The directors say the activities of this subsidiary will be reviewed in the annual report.

At the trading level profits for the six months rose from £797,485 to £1,335m which were subject to depreciation of £263,882 (£143,551), denture interest of £8,206 (£13,645), and

bank interest £44,868 (£27,714). Tax amounted to £388,891 (£223,964). There were extraordinary debits of £10,859 (£22,046) after which attributable profits emerged ahead from £385,942 to £635,078.

comment

Measures taken in 1981 have clearly put Halstead back on to a growth path. Productivity gains are coming through and 1982 remains the main contributor to profit—around two-thirds in 1982. Retail flooring, which recovered to break even during last year, is looking healthier helped by the withdrawal of Dunlop from the scene. The problems at Averoy are not likely to be helped by the depressed state of the overall travel market but with late booking becoming more a feature of the trade, particularly for small operators, the true picture will not be obvious until year end. With only fine tuning left for productivity the group will have to look to volume gains and price increases to the second half. But the company's confidence must be encouraged by the relatively stable raw material costs. Balance sheet remains strong with only minimal gearing leaving the way open for a major acquisition. But without this, approaching £3m pre-tax appears well within reach. Yesterday shares rose 4p to 97p for a prospective p/e over 9.

The FAMILY Investment Trust plc

Specialising in Smaller Company Investments since 1962

Year ended 31st January 1983

Dividend: 6.30p per share +5.0%

Net Asset Value: 182.5p per share +36.4%

FT Actuaries All-Share Index +19.4%

Total Assets: £8,028,285

Performance since 1962

Net Asset Value +973%

FT Actuaries All-Share Index +337%

Dividends +889%

Retail Price Index +516%

KBIM

Managers:
Kleinwort Benson
Investment Management

Copies of the Annual Report are available from The Secretaries, 20 Fenchurch Street, London EC3P 3DB

Bryant Holdings lower midway

FIRST HALF pre-tax profits of Bryant Holdings fell from £4.81m to £3.47m, the reduction reflecting a decrease in margins on private housing and additional finance charges on increased bank borrowings.

The net interim dividend for the half year, covering the period to end November, 1982, is being effectively increased from 0.5p to 0.55p per share—a final equal to 1.5p was paid for 1981/82.

Turnover declined from £44m to £41m—the group's interests are in property investment, home and property development and construction.

Stated earnings per share emerged at 3.2p (3.7p) after tax of £914,000, against £1.5m previously.

comment

Bryant's diversification away from the West Midlands into the leafy suburbs and villages of Berkshire, Surrey and North Hampshire, which was started three years ago has been a vital prop to its earnings during the recession. But the company has not yet had time to develop 'satellite' running relationships with the local authority planners in the South-East and this year's building programme has been

held up by lengthy wrangles over time buyers' market. In the house design. Most of the profits from the South-East, though it is the price of smaller units in the West Midlands, which have shown the sharpest increase, Bryant has benefited from rises of 3 to 4 per cent in the prices of the units it sells there, which will improve severely-squeezed margins. Borrowings remain low at only 16 per cent of shareholders' funds. The share price yesterday fell to 66p, 14.5 times the prospective fully-taxed earnings.

Fitch & Co. better than expected at £875,000

BETTER THAN forecast profits of £875,000 before tax have been produced by Fitch & Company Design Consultants for 1982. At the time of the company's placing on the USM last October, a forecast of £850,000 was made. The full year figure compares with a previous £707,000. The net final dividend has been declared, as forecast, at 2.5p—earnings per 10p share were given as moving up from 6.7p to 8.3p.

The company is well-placed for continuing steady consistent growth, say the directors. Turnover improved from £3.51m to £4m. Tax amounted to £428,000 against £377,000. Minority interests took £5,000 (nil), and there were extraordinary costs this time of £91,000 which related to the costs of entry to the USM. The total absorbed by the first dividend was £138,000, which left lower retained profits of £211,000 compared with £330,000.

In a difficult year, our figures only tell you half the story.

HALF THE STORY.

£M	1982	1981
Premium Income	1,358	1,157
Underwriting Losses	153.8	52.9
Investment Income	195.5	156.9
Pre-Tax Profit	44.5	104.9
Tax	(9.1)	31.7
Attributable Profit	53.6	73.2
Earnings per Share	31.3p	43.7p

THE OTHER HALF

RESERVES

Exchange rate movements added to the sterling measure of our net assets overseas and, together with favourable developments in investment values, combined to produce total surplus funds of £923 million and a world-wide solvency margin of 75%—a clear demonstration of the strength of our financial resources and the security this gives to all our policyholders.

DIVIDEND

The Board are recommending a final dividend of 9.5p per share, making a total of 17p per share, an increase of 4.6%. Despite the earnings decline, the Board consider some small dividend progression justified by a cover of 1.8 times.

CLAIMS

Our exceptional underwriting losses in the UK highlighted the extent of the insurance protection we provided for our policyholders, both private and commercial, during perhaps the worst winter in living memory. But we believe it is to give just this kind of support that we are in business.

LIFE ASSURANCE

I am pleased to record outstanding results for new individual business in 1982, with increases in both sums assured and premiums well above market average. The figures were boosted by more attractive premium rates for non-smokers, a new bonus series and the first Plain-English life policy in the UK.

MANAGEMENT

As I travel both at home and overseas, I am encouraged to see the skill and dedication of a new generation of management moving into positions of leadership within the Corporation. It is in their hands that our future prosperity will lie.

NEW TECHNOLOGY

Investment in new technology proceeds and although the full benefits remain to be reaped in future years we are already seeing welcome returns in several areas of our operations.

THE WAY AHEAD

I take most comfort from the indications of an incipient economic recovery in the United States. If this is encouraged to gather pace and leads to an end to the long recession elsewhere, then we can begin to hope for an increase in the demand for insurance and some easing of competitive pressures induced by over-capacity.

In the meantime we must resolve that our share of a market still contracting is not defended at any cost.

From the Annual Statement by the Chairman, Mr. Gordon R. Simpson.

General Accident

General Accident Fire & Life Assurance Corporation plc.
World Headquarters, General Buildings, Perth, Scotland PH1 5TP.

The complete story of how we did in 1982 is included in our Annual Report for the year. A copy can be obtained by writing to the Secretary at the address above

YORKGREEN INVESTMENTS PLC

(Registered in England No. 1051284)

SHARE CAPITAL

Authorised £1,250,000 Issued and to be issued fully paid or credited as fully paid £1,110,000

Ordinary Shares of 10p each

In connection with a Placing of 4,700,000 New Ordinary Shares of 10p each at 36p per share by Smith Keen Cutler, application has been made to the Council of The Stock Exchange for the grant of permission for dealings to take place in the whole of the issued ordinary share capital of Yorkgreen Investments PLC in the Unlisted Securities Market. It is emphasised that no application has been made for these securities to be admitted to listing. Shares have been offered to and are available through the Market.

Particulars relating to the Company are available in the External Statistical Services and copies of the prospectus may be obtained during normal business hours on any weekday (Saturdays excepted) up to and including 26th April, 1983 from:-

SMITH KEEN CUTLER

52 Cornhill, London EC3V 3NR Exchange Buildings, Stephenson Place, Birmingham B2 4NN

Notice of Redemption

Monsanto International Finance N.V.

5% Guaranteed Sinking Fund Debentures due May 15, 1983

NOTICE IS HEREBY GIVEN that, pursuant to the provisions of the Indenture dated as of May 1, 1970 under which the above described Debentures were issued, Citibank, N.A. (formerly First National City Bank), as Trustee, is calling for redemption on May 15, 1983, through the operation of the Sinking Fund, provided for in said Indenture, all outstanding Debentures of the said issue.

The Debentures specified above are to be redeemed for the said Sinking Fund at Citibank, N.A., Receive and Deliver Department—36th Floor, 111 Wall Street, The City of New York, State of New York, and the main offices of Citibank, N.A. (formerly First National City Bank) in Amsterdam, Brussels, Frankfurt/Main, London (City Office), Milan, Paris, Rome, or Citibank (Luxembourg) S.A., Luxembourg, as the Company's paying agents, and will become due and payable on May 15, 1983 at the redemption price of 100 percent of the principal amount thereof plus accrued interest on said principal amount to such date. On and after said date, interest on the said Debentures will cease to accrue.

The said Debentures should be presented and surrendered at the offices set forth in the preceding paragraph on the said redemption date with all interest coupons maturing subsequent to the redemption date. Coupons due May 15, 1983 should be detached and presented for payment in the usual manner.

For MONSANTO INTERNATIONAL N.V.
By: CITIBANK, N.A. (formerly First National City Bank),
Trustee

April 12, 1983

HORIZON

Horizon Travel P.L.C. and subsidiary companies

RECORD RESULTS FOR FIFTH CONSECUTIVE YEAR

- Group Turnover £118,486,963—22% increase
- Pre-Tax Profits £14,300,817—7% increase
- Profit Attributable to Shareholders after Tax £9,718,094—55% increase
- Earnings per Share 23.00p—15.95p previous year
- Proposed Dividend for year 3.60p—3.00p previous year

Announcing results for the year ended 30th November, 1982, Chairman, Bruce Tanner, said:

"Profits are at a record level for the fifth consecutive year. In Summer 1982 we carried 334,000 passengers—an increase of 12% and, for the first time, we gained the third largest share of summer business."

"Bookings for Winter 1982/83 have established yet another record with 114,000 passengers carried—an increase of 11%. This further consolidates our position as second largest winter operator, with a much increased market share."

"Again, in Summer 1982 and in Winter 1982/83, Horizon has been able to maintain successfully a no surcharge policy."

"Orion Airways has increased its contribution to pre-tax profits to £4.3 million and our hotels group has contributed further profits of £370,000—substantially up on last year."

"Horizon remains convinced that it is essential to place emphasis on value for money and a high level of client satisfaction and so maintain its acknowledged record among major operators for providing most enjoyable holidays."

Horizon flies from Birmingham, Bristol, East Midlands, Gatwick, Glasgow, Luton, Manchester and Newcastle airports. Copies of the 1982 Report and Accounts can be obtained from: The Secretary, Horizon Travel P.L.C., Broadway, Edgbaston Five Ways, Birmingham B15 1BB.

Key Figures Rabobank 1982.

Key Figures as of December 31, 1982.
(in millions of Dutch guilders).

Total assets	110,158
Total loans	68,012
Total deposits	85,760
Own funds	5,221
Net income	489

Number of:	
Offices	3,051
Employees	28,020
Savings accounts	8,720,000
Personal cheque accounts	2,940,000
Other current accounts	420,000

Rabobank Nederland, International Division, Catharijswijk 38, 3511 GB Utrecht, The Netherlands. Telex 40200.
Representative Office London, Princes House, 95, Gresham Street, London EC2N 7TA, United Kingdom. Tel. (01) 6066361. Telex 82250.
Branch Office New York, United States of America, Tel. 414337.
Representative Office Frankfurt, West Germany, Tel. 413873.
Subsidiary Company, Curaçao N.A. Tel. 3422.

Rabobank



TCW Realty Advisors

is pleased to announce
the formation of

TCW REALTY FUND I

with funding of

\$172,500,000

TCW Realty Advisors

is a joint venture of

Trust Company of the West

and

Westmark Real Estate Investment Services

Trust Company of the West

Los Angeles

Companies and Markets

BIDS AND DEALS

● NEWS ANALYSIS—BTR/TILLING'S PLACE IN THE BID LEAGUE TABLE

Overshadowed by the early days of the 70s

BY DAVID DODWELL AND RAY MAUGHAN

THE \$500m bid from BTR for Thomas Tilling may be the biggest on record in nominal terms—but two bids from the buoyant days of 1973 overshadow it by far.

Largest by far remains the bid by Grand Metropolitan for Watney Mann. Worth £378.3m then, the price today would have been £1.85bn.

The defence against the cash, equity and loan stock terms of Grand Metropolitan's bid, which was then headed by the late Mr Maxwell Joseph, was fierce.

The brewer took into its fold a satellite brewery, Samuel Webster, and the International Distillers and Vintners associate. The two protagonists then clashed over control of Truman, Hambury and Burton. Watney lost, and then found its adversary turning its predatory attentions upon itself.

For Grand Metropolitan, the sheer weight of the debt financing charges arising out of the bid

almost obliterated profits for a while. But it was gradually able to trade its way back to acceptable income and gearing levels. Judicious purchase of its own loan stock eventually freed the group from the ball and chain of borrowings arising out of the bid.

In many respects the Watney Mann saga was repeated in the following year when the Imperial Group, then primarily a tobacco company, launched a £268m bid for Courage, the brewery group.

Like Watney, Courage tried to clean up its portfolio, and to make itself indigestible. It took over John Smith's of Tadcaster—but to no avail. Impe was eventually prevailed upon with a bid which in today's terms would have been worth £300m.

It is perhaps ironic, that Mr John Kent, the current Impe chairman, cut his teeth on the Courage division while Mr Michael Webster, chairman of

Year	Bidder	Target Company	Cash Value	Value in 1983 \$m (approx)
1983	BTR	T. Tilling	\$500m	\$500m
1980	BP	Selection Trust	\$380.3m	\$450m
1973	Grand Met	Watney Mann	\$378.3m	\$1.85bn
1982	Pakemaster Stores	F. W. Woolworth	\$310.4m	\$350m
	"Hanson Trust"		\$258.3m	\$258.3m
1983	"Bassishaw"	UDS	\$247.3m	\$247.3m
1973	Imperial Group	Courage	\$268m	\$300m
1980	Marsh and McLennan	C. T. Bowring	\$186.5m	\$270m
1980	Thorn EMI	EMI	\$148.3m	\$150m
1982	Redland	Cawoods	\$147.7m	\$145m
1982	Beristford	British Sugar	\$138.3m	\$144m

Grand Met in that crucial Grand Met struggle now finds himself as head of Firth Lovell the grocery supermarket group, waiting through the weighty Monopolies Commission investigation to discover what the merger authorities make of the £268m bid from Linford Holdings.

The protracted Linford deal is very much the product of the reorganisation of the food retailing industry, conducted against the backdrop of a bitter struggle for market share. Retailing in general has absorbed much energy in the recent wave of bull market takeover activity. Foremost among

these is the Paternoster stores take over of F. W. Woolworth, the UK subsidiary of the U.S. foodwork group, completed in October last year and worth £310m.

Close behind this is the unresisted contest for UDS, where Hanson Trust and Bassi show are stalling it out around the quarters of a million pound level.

The latest rash of takeovers marks a significant change from the second half of the 1970s, when takeover activity in the UK waned. While overall figures for the first three months of 1983 are not yet available, they are probably running well ahead of 1982 levels.

Between 1981 and 1982, total spending on mergers and acquisitions doubled to £2.2bn. But this was a far cry when compared with a total spending in 1972 of £2.53bn. At today's prices, that would amount to £2.7bn.

Low and Bonar in travel merger

BY ROWENA WHELAN

Low and Bonar is to merge its low-making travel businesses with the Scottish private travel company, A. T. Mays, to form Britain's third largest retail travel agents, according to a Low and Bonar spokesman.

The new company, to be called A. T. Mays Group, will have 136 branches mainly in Scotland, northern England and the Midlands. The deal will give the present A. T. Mays owners, the Moffat family, 70 per cent of the votes exercisable at general meetings and 30 per cent to Low and Bonar.

It is intended to seek a listing for A. T. Mays Group on the Stock Exchange on the longer term.

Mr Brian Gilbert, Low and Bonar's chief executive, said the

new company will benefit from the economies of scale, with greater purchasing strength and the ability to buy communications equipment necessary in the travel industry. He said the travel business had been hit by increasing competition in the past two years.

Low and Bonar's travel section showed a £288,000 loss on a £2m turnover in the company's figures for the year to November 1982. The whole company, with the international engineering, engineering and textile operations, made a total £3.5m pre-tax profit.

For the year ended October 1982, A. T. Mays had a pre-tax profit of £753,000. Net assets were £2m. Property assets for the Low and Bonar travel section were yesterday put at £500,000.

Some 65 per cent of the issued ordinary shares of the new A. T. Mays Group will be controlled by Low and Bonar. But A. T. Mays Group will also issue 1m 3.5 per cent cumulative convertible preference shares of £1 nominal value to A. T. Mays' shareholders. These will carry voting rights which, together with the ordinary shares, will give the Moffat family 70 per cent of the total votes exercisable at general meetings.

In addition, A. T. Mays Group will issue £300,000 14 per cent debentures to A. T. Mays' shareholders. The preference shares and debentures reflect the different relative contributions of shareholder property assets by the two companies involved in the merger.

Akroyd buys rest of Cohn Delaire

Akroyd and Smithers, the leading stockbroker, said yesterday that it had acquired the outstanding minority interest in its New York subsidiary, Cohn, Delaire and Kaufman Inc, a member of the New York and American stock exchanges, for a cash consideration of \$4.5m.

Akroyd said yesterday that since the abolition of exchange controls the company's international business has grown and the board considers that this expansion is likely to continue. Akroyd said it intended to acquire the outstanding minority interests and as a result of this change Cohn, Delaire and Kaufman Inc will now be known as Akroyd and Smithers Inc.

HIGHGATE OPTICAL

In the formal offer document by Exent Optical for Highgate Optical & Industrial it is revealed that Highgate and its subsidiaries made an estimated loss before tax of not more than £228,000 for 1982.

This was made up as to: operating profit of Bracewood £29,000, exceptional debt of Bracewood £299,000 and operating loss of Highgate £288,000.

During 1982, Bracewood received £80,000 as an industrial incentive payment from Rietz Scragg, its major customer. The incentive has been treated as a non-returnable receipt and credited to profit and loss account.

COPE ALLMAN

Grieverson, Grand and Co have purchased a further 450,000 ordinary of International on behalf of Hollis Bros and E.S.A., bringing the holding to 3.025m Ordinary (7.85 per cent).

BMDS BUYOUT

A group of directors and managers of British Medical Data Systems has acquired the 51 per cent of the company's shares held by BOC. The group is headed by Sir Edward Penness, BMDS chairman.

Reynolds in \$11.2m rights issue to buy Austrian site

Reynolds Diversified Corporation, the Nevada-based energy group, is seeking to raise \$11.2m through a rights issue. Proceeds of the issue will be used to acquire the Kitzbühel Development, a 10-acre development site in a skiing and summer resort in Austria.

Three new U.S. shares of 1 cent each at par will be offered for every three shares held.

Proceeds for the rights issue will also be spent on development of the group's oil activities.

Reynolds said that since the London stock exchange had announced that its prohibition of dealings in Reynolds shares would not be removed, following

the change in the rules governing 163 quotes, the board has been seeking alternative ways to obtain a quoted and marketable security for shareholders.

"It is unlikely that a UK quotation will be granted in the short term so the board has been left with no alternative but to seek a quotation in North America," negotiations are under way to reverse Reynolds into Pennant Pacific Resources, a company listed on the Alberta stock exchange. Reynolds has sold its entire gold portfolio to Pennant in return for 49.5 per cent of Pennant's equity, but completion of the reverse merger depends on the success of the rights issue.

SHARE STAKES

Burgess Products Holdings—A. R. Weston, a director, has ceased to have a non-beneficial interest in 55,920 ordinary stock units.

Drake and Scull Holdings—Chevalier A. A. A. Malver's non-beneficial holding increased to 370,000 by purchase of 50,000 shares at \$2p.

Centraway Trust—Centraway Group has sold 45,000 ordinary interest now stands at 374,792 (50.32 per cent).

Tavener Rutledge—Okhai of Dundee is the holder of 110,000 shares (6.4 per cent).

Marchwiler—B. McAlpine, a director, has sold 40,000 shares.

Thomas French & Sons—T. J. French, a director, is beneficially interested in 553,761 ordinary shares and Mrs S. M. Stabler is beneficially interested in 483,506.

EIS Group—The holding of M & G Group in ordinary shares now totals 93,180 (0.8 per cent).

Alpine Holdings—The acquisition by Kean and Scott Holdings of the 1,067,500 ordinary shares at 130p per share from James Gulliver Associates in accordance with the option agreement dated March 7, 1983 has been completed.

Low and Bonar—On March 23 1982 B.R.P. Securities wholly owned subsidiary of Bajau, purchased by Kean and Scott Holdings, fully paid ordinary shares, which increased that company's interest to 805,000 shares.

Burns Anderson—Mr R. E. M. Lee, a director, has purchased 30,000 ordinary shares.

Clyde Shipping acquires Lawson Batey for £4m

GLASGOW-BASED Clyde Shipping will have a fleet of 23 tug boats with the £4m acquisition of Lawson-Batey Tugs of Newcastle, one of Britain's oldest established tug fleet operators.

Clyde Shipping profits last year were £1.5m on assets of £9.1m. Lawson-Batey made a £750,000 profit in 1982.

The takeover follows accept-

ance by Lawson-Batey shareholders and the offer is equivalent to £13.63 per Lawson-Batey share.

Mr William Cuthbert, managing director of Clyde Shipping, said: "In recent years we have sought to combine growth in our activities with an increase in the geographical spread of our towage interests within the UK."

CORRECTION TO NOTICE WHICH APPEARED 12th APRIL, 1983.

U.S.\$70,000,000

Short-term guaranteed Notes

issued in Series under a

U.S.\$20,000,000

Note Purchase Facility

by

Mount Isa Mines

(Coal Finance) Limited

Notice is hereby given that the above Series of Notes issued under a Production Loan and Credit Agreement dated 30th March, 1983, carry an Interest Rate of 9.4% per annum. The Issue Date of the above Series of Notes is 12th April, 1983, and the Maturity Date will be 12th October, 1983. The Euro-clear reference number for this Series is 7147 and the CEDEL reference number is 24253.

Manufacturers Hanover Limited

Issue Agent

12th April, 1983

This advertisement is issued in compliance with the requirements of the Council of The Stock Exchange. It does not constitute an invitation to any person to subscribe for or purchase any shares in Edenspring Investments PLC.

EDENSPRING INVESTMENTS PLC

(Incorporated in England under the Companies Acts 1948 to 1981—No. 1692513)

Authorized	Issued or to be issued fully paid
£750,000	£369,705
Is Ordinary Shares of 1p each	

6,000,000 ordinary shares of 1p each have been issued by way of subscription for cash at par. A maximum of 30,970,537 ordinary shares of 1p each will be issued as consideration for the acquisition of the whole of the share capital of Pennine Commercial Holdings P.L.C. ("PCH") in issue following implementation of the proposed capital reorganisation.

Application has been made to the Council of The Stock Exchange for all the 36,970,537 ordinary shares of 1p each of Edenspring Investments PLC ("Edenspring") to be admitted to the Official List.

Particulars relating to Edenspring are available in the Extel Statistical Services and copies of such particulars may be obtained during normal business hours for so long as the Offers on behalf of Edenspring for the whole of the share capital of PCH in issue following implementation of the proposed capital reorganisation of PCH remain open for acceptance, from—

Henry Cooke, Lumsden & Co.
City Wall House,
84/90 Chiswell Street,
London EC1Y 4TX

Arkwright House,
Paragon Gardens,
Manchester M60 3AH

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Bifurcated Engineering PLC

(Registered in England—No. 36451)

Authorized		Share capital	Issued and fully paid	
Existing	Proposed		Existing	Proposed
£'000	£'000		£'000	£'000
2,500	3,750	Ordinary Shares of 25p each	1,928	1,928
		8 per cent. Convertible Cumulative Redeemable Preference Shares of £1 each		
—	1,050		—	1,047
<u>2,500</u>	<u>4,800</u>		<u>1,928</u>	<u>2,975</u>

This advertisement appears in connection with the issue of 1,047,225 8 per cent Convertible Cumulative Redeemable Preference Shares 1991/1995 of £1 each ("Convertible Shares") of which 278,000 will be issued on 4th May, 1983. The Convertible Shares have been admitted to the Official List by the Council of The Stock Exchange.

Particulars relating to the Convertible Shares are available in the Extel Statistical Services and may be obtained during normal business hours on any weekday (excluding Saturdays) up to and including 28th April, 1983 from:

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41 Bishopsgate,
London EC2P 2AA

Laurence, Prust & Co.
Basildon House,
7-11 Moorgate,
London EC2R 6AH



RANSOMES

Profits doubled in a more encouraging market

* Group profit before tax and extraordinary items at £2,048,000 was almost double the 1981 figure. An appreciable proportion of this was earned by the US subsidiary.

* Introduction of several important new products both in the farm machinery and grass machinery divisions, coupled with some signs of improving demand, have provided a more encouraging market in which to operate.

* The Board recommend an increased total ordinary dividend of 12.0p per share (1981: 11.14p).

Copies of the Annual Report may be obtained from the Secretary.

Ransomes Sims & Jeffries PLC, Ipswich IP3 9QG

GRASS MACHINERY FARM MACHINERY

INDUSTRIAL CASTINGS PROPERTY DEVELOPMENT

Britannia Sp. of Unit Trusts Ltd. (a)(c)(g).
Sabbary House, 31, Finsbury Circus, London EC2
01-638 0478-0479 or 01 586 2777
Britannia Viewpoint 01-673 0048
UK Specialist Funds

[illegible]

Save & Prosper—continued				Tyndall Managers Ltd.(a)(b)(c)			
Overseas Funds (a)				18, Canyon Road, Bristol			
Europe	131.8	141.8	-0.5	1.00	Aviation Securities	48.4	52.3
Europe	179.7	171.9	-0.5	0.54	Accum. Units	234.5	251.2
Japan	17.4	17.4	0.0	0.00	Accum. Units	234.5	251.2
S.E. Asia	17.4	17.4	0.0	0.00	Accum. Units	234.5	251.2
U.S.	120.4	216.7	-1.4	0.55	Accum. Units	234.5	251.2

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National Westminster Ltd.			
1st Dividend, EC2P 65D			0.726 1/2
2nd Dividend, EC2P 65D			0.726 1/2
3rd Dividend, EC2P 65D			0.726 1/2
4th Dividend, EC2P 65D			0.726 1/2
5th Dividend, EC2P 65D			0.726 1/2
6th Dividend, EC2P 65D			0.726 1/2
7th Dividend, EC2P 65D			0.726 1/2
8th Dividend, EC2P 65D			0.726 1/2
9th Dividend, EC2P 65D			0.726 1/2
10th Dividend, EC2P 65D			0.726 1/2
NEL Trust Managers Ltd. (s) (g)			
1st Dividend, EC2P 65D			0.726 1/2
2nd Dividend, EC2P 65D			0.726 1/2
3rd Dividend, EC2P 65D			0.726 1/2
4th Dividend, EC2P 65D			0.726 1/2
5th Dividend, EC2P 65D			0.726 1/2
6th Dividend, EC2P 65D			0.726 1/2
7th Dividend, EC2P 65D			0.726 1/2
8th Dividend, EC2P 65D			0.726 1/2
9th Dividend, EC2P 65D			0.726 1/2
10th Dividend, EC2P 65D			0.726 1/2
North London Trust Managers Ltd. (s) (g)			
1st Dividend, EC2P 65D			0.726 1/2
2nd Dividend, EC2P 65D			0.726 1/2
3rd Dividend, EC2P 65D			0.726 1/2
4th Dividend, EC2P 65D			0.726 1/2
5th Dividend, EC2P 65D			0.726 1/2
6th Dividend, EC2P 65D			0.726 1/2
7th Dividend, EC2P 65D			0.726 1/2
8th Dividend, EC2P 65D			0.726 1/2
9th Dividend, EC2P 65D			0.726 1/2
10th Dividend, EC2P 65D			0.726 1/2
Northwich Union Assurance Group (s)			
1st Dividend, EC2P 65D			0.726 1/2
2nd Dividend, EC2P 65D			0.726 1/2
3rd Dividend, EC2P 65D			0.726 1/2
4th Dividend, EC2P 65D			0.726 1/2
5th Dividend, EC2P 65D			0.726 1/2
6th Dividend, EC2P 65D			0.726 1/2
7th Dividend, EC2P 65D			0.726 1/2
8th Dividend, EC2P 65D			0.726 1/2
9th Dividend, EC2P 65D			0.726 1/2
10th Dividend, EC2P 65D			0.726 1/2
Openhouse Food Management Ltd.			
1st Dividend, EC2P 65D			0.726 1/2
2nd Dividend, EC2P 65D			0.726 1/2
3rd Dividend, EC2P 65D			0.726 1/2
4th Dividend, EC2P 65D			0.726 1/2
5th Dividend, EC2P 65D			0.726 1/2
6th Dividend, EC2P 65D			0.726 1/2
7th Dividend, EC2P 65D			0.726 1/2
8th Dividend, EC2P 65D			0.726 1/2
9th Dividend, EC2P 65D			0.726 1/2
10th Dividend, EC2P 65D			0.726 1/2
Parish Trust Managers Ltd. (s) (g)			
1st Dividend, EC2P 65D			0.726 1/2
2nd Dividend, EC2P 65D			0.726 1/2
3rd Dividend, EC2P 65D			0.726 1/2
4th Dividend, EC2P 65D			0.726 1/2
5th Dividend, EC2P 65D			0.726 1/2
6th Dividend, EC2P 65D			0.726 1/2
7th Dividend, EC2P 65D			0.726 1/2
8th Dividend, EC2P 65D			0.726 1/2
9th Dividend, EC2P 65D			0.726 1/2
10th Dividend, EC2P 65D			0.726 1/2
Perpetual Unit Assurance Co. (s) (g)			
1st Dividend, EC2P 65D			0.726 1/2
2nd Dividend, EC2P 65D			0.726 1/2
3rd Dividend, EC2P 65D			0.726 1/2
4th Dividend, EC2P 65D			0.726 1/2
5th Dividend, EC2P 65D			0.726 1/2
6th Dividend, EC2P 65D			0.726 1/2
7th Dividend, EC2P 65D			0.726 1/2
8th Dividend, EC2P 65D			0.726 1/2
9th Dividend, EC2P 65D			0.726 1/2
10th Dividend, EC2P 65D			0.726 1/2
Provincial Life Co. Ltd.			
1st Dividend, EC2P 65D			0.726 1/2
2nd Dividend, EC2P 65D			0.726 1/2
3rd Dividend, EC2P 65D			0.726 1/2
4th Dividend, EC2P 65D			0.726 1/2
5th Dividend, EC2P 65D			0.726 1/2
6th Dividend, EC2P 65D		</	

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EUROPEAN OPTIONS EXCHANGE

[illegible]

Week	Liver (%)	Spleen (%)	Kidney (%)	Adipose (%)
0	10	5	5	5
4	12	7	7	7
8	14	9	9	9
12	15	10	10	10

Option		May	Aug.	Nov.	May	Aug.	Nov.
S&L (USP 455)	260	100	110	—	1	2	—
	290	40	80	—	3	—	—
	320	40	60	27	3	10	15
	350	13	20	28	14	25	38
	460	30	5	27	47	56	63
IMP (USP 113)	900	27	—	—	1	—	—
	100	10	—	—	1 1/2	—	—
	110	13	10	11	3	4	8
	120	4	—	—	—	—	10
	130	6	4	—	13	15	16
LMO (USP 273)	210	73	65	—	—	4	8
	230	35	60	47	—	—	11
	250	28	67	73	2	14	20
	270	18	25	27	34	30	60
	280	3	20	—	23	58	—
	290	1	5	—	—	—	—
	350	1	—	—	2	—	—
	580	1	—	—	—	—	—
LNR (USP 23)	80	3	0 1/2	12	3	3	7
	100	3	2	5 1/2	0	12	13
	120	0 1/2	2 1/2	8 1/2	18	10	22
P & O (USP 147)	100	40	50	—	0 1/2	1	3
	110	40	60	—	1 1/2	2	5
	120	20	60	21	1	3	5
	130	18	22	22	3	5	14
	140	11	14	10	10	21	23
	160	21 1/2	—	—	—	8	23
RCL (USP 478)	420	64	79	82	2	3	12
	460	30	7	23	12	18	23
	500	7	23	—	12	57	43
	520	2	—	—	73	77	—
	550	2	2	—	126	135	—
	560	3	—	—	175	—	—
RTZ (USP 548)	520	137	—	—	1	—	—
	490	127	120	—	—	—	—
	460	27	26	—	7	2	—
	500	60	50	—	7	17	26
	550	16	98	60	23	43	45
VRF (USP 5112)	80	—	—	—	1	—	—
	70	—	—	—	1	—	—

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For more information about this research, or the position of the FT in the European market place, please contact your local Financial Times representative or the Market Research Department of the Financial Times.

	Readership %
FINANCIAL TIMES	42
FAZ	24
HANDELSBLATT	21
LE MONDE	11
L'ET	9
NEUE ZÜRCHER ZEITUNG	8
WALL STREET JOURNAL	6
BUSINESS WEEK	24
ECONOMIST	22
TIME	13
NEWSWEEK	11
INSTITUTIONAL INVESTOR (INT.ED.)	21
EUROMONEY	17

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NOTES

Prices are in pence unless otherwise indicated and those designated \$ with no prefix refer to U.S. dollars. Yields % (shown in most columns) allow for all buying expenses. A Offered prices include all expenses. B Today's price. C Yield based on offer price. D Estimated or Today's opening price. E Distribution date. F Bid today. G Periodic premium insurance plan. H Single premium insurance. I Offered price includes all expenses except agent's commission. J Offered price includes all expenses if bought through managers. K Previous day's price. L Guaranteed profit. M Suspended. N Yield before Jersey tax. O End-submission. P Only available. Q Not available today. R Yield shown after deduction of BAW income.

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SECTION III - INTERNATIONAL MARKETS

FINANCIAL TIMES

Tuesday April 12 1983

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WALL STREET

Money data allows reins to loosen

THE FEDERAL Reserve's announcement late on Friday of an unexpected fall in M-1 money supply meant that Wall Street started the week in excellent form, with both credit and equity sectors responding favourably, writes Terry Byland in New York.

The slackening of upward pressures on money supply, which the market hopes to see confirmed later this week when the latest M-2 and M-3 aggregates are published, brought further easing of yields in the credit sector and a strong rise in share prices.

By 1pm the Dow Jones industrial average was up 12.00 at 1136.71. The upswing in equities - which took in the broad range of industrial, technological and consumer issues - was in part a technical rebound from several sessions of sluggish trading, but also indicated underlying confidence ahead of the quarterly corporate reporting season which gets under way this week.

IBM stood out strongly at \$105 1/4, a rise of \$1 1/4 to a 52-week high which un-

derlined the market's satisfaction with the computer group's corporate strategy. Also in demand were shares in Honeywell, 7 1/2% higher at \$88; Digital Equipment, which put on \$2 1/2 to \$118 1/4; and Texas Instruments, \$1 higher at \$182.

Oil shares, which spearheaded last week's gains in equity markets, were in demand again. Exxon, \$1 up at \$31 1/4; Mobil, \$ 1/2 up at \$29 1/4; and Standard Oil of Ohio, \$1 1/4 up at \$45 1/4, all attracted good retail demand. Among the oil industry service groups, Schlumberger added \$ 1/2 to \$42 1/2.

General Motors, a weak spot towards the end of last week, recouped \$ 1/2 to \$57 1/4, but other motor issues remained out of favour. Ford, at Chrysler at \$17, showed no change from pre-weekend levels.

Another weak spot was Pan American which slipped \$ 1/2 to \$4 1/4, in a generally dull airline sector.

A boardroom prediction of flat earnings for the first quarter proved no discouragement to buyers of Minnesota Mining and Manufacturing, which gained \$ 1/2 to \$78 1/4. Kennametal, the tools and ammunition manufacturer, put on \$ 1/2 to \$25 1/4 on its disclosure of a reduced loss in the third quarter.

CBS, the radio and television network operator, added \$ 1/2 to \$68 1/4 after announcing that it will market software for personal computers.

Further encouragement came from a half-point cut in broker loan rates by U.S. Trust, bringing its level to 9% per cent.

Credit market yields maintained the downward trend established late on Fri-

day. The Federal Funds rate held low at 8% per cent, confirming hopes that it will ease this month as the recent weight of Treasury funding is absorbed.

Three-month Treasury Bills were discounted at 8.18 per cent and six-month bills at 8.28 per cent. But the strongest response to the outlook for interest rates came at the long end of the Treasury bond market, where the benchmark 2012 rose from Friday's late quotation of 98 1/4 to reach 99 1/4.

The municipal bond sector nervously awaited the outcome of today's meeting between Government and industry leaders striving to avert a default by Washington Public Power Supply System on its \$2.25bn in bonds.

A strong Toronto opening was quickly checked, but modest gains remained through much of the day. Base metals and minerals were among the weakest, while Montreal was held back by the papers and publishing sector. Banks were to the fore.

FAR EAST

Tokyo finds bargains in short supply

THE SEARCH for overlooked and bargain-priced issues which had kept Tokyo investors in the market over the past week or more appeared yesterday to have borne all the fruit that it could for the present. With blue chips still near record levels, many participants moved to the sidelines to await new buying stimuli.

The main hope is for a cut in the official discount rate from its current 5% per cent, a Yamaichi Securities analyst said, although any further pointers to an economic recovery in Japan would be welcomed.

But the wait-and-see attitude allowed the Nikkei-Dow market average to edge up 2.38 from Saturday's close to reach 8,475.9 in thin volume of 280m shares. The stock exchange index firmed 0.49 to 611.03.

High technologies were well maintained. TDK rose Y80 to Y4,320. Canon Y60 to Y1,270. Matsushita Electrical Y20 to Y1,330 and Sony Y40 to Y3,540.

Low-priced large-asset stocks were at a disadvantage. Sanyo Kokusaku Pulp shed Y8 to Y265. Keisei Electric Railway Y9 to Y471. Tokyo Marine the same amount to Y521 and Japan Line Y5 to Y190.

Government bond prices firmed, reflecting easier U.S. rates at the end of last week and a seasonal surplus in the money market, bond managers said.

Buying support took a more solid form in Singapore, where the Straits Times industrial index gained 10.95 to 890.25, helped by a crop of good corporate results.

Overseas Union Bank rose 14 cents to S\$4.88 on its higher profit figures while Overseas Union Trust, its subsidiary, firmed three cents to S\$3.02.

Hong Kong was steady but subdued as early gains were eroded, but the Hang Seng index managed a 7.89 improvement to 1,041.88, its seventh consecutive gain.

Of the property leaders, Cheung Kong slipped 10 cents to HK\$10.20, but Swire Properties added the same amount to HK\$8.80. Trafalgar Housing, which forecast a loss and cancelled dividends due, was suspended at HK\$1.04.

AUSTRALIA

Mines do well

SHARP GAINS by gold-related mining stocks and industrials highlighted a buoyant Sydney session which saw the All-Ordinaries Index close 7.3 higher at 537.2.

Advances outnumbered declines by 190 to 57, with 140 traded issues unchanged. The 18.8m shares traded at a value of A\$14.5m, of which A\$8.9m was invested in the industrial sector.

BHP added 14 cents to A\$9.90. Western Mining 12 cents to reach A\$4.47 and CRA 10 cents to A\$4.80.

Melbourne continued the firm trend of last week with takeover target Grace Brothers gaining 25 cents to A\$4. Like Sydney, gold issues were in demand.

SOUTH AFRICA

Gains trimmed

LATE profit-taking pulled most Johannesburg gold shares off the day's highs, which had been achieved on the back of a firmer bullion price.

Elandsrand nonetheless added R1.50 to R14, while Gold Fields group mines followed the trend after steady quarterly results. GFSA itself picked up R4 to R142.

Anglo-American rose 85 cents to R22.25 and De Beers 33 cents to R9.03, while industrial leader Barlows firmed 10 cents to R12.25.

LONDON

Rate allure proves irresistible

BRIGHTER prospects for lower interest rates and continuing optimism about the economic outlook proved irresistible lures for London investors yesterday. A fresh wave of enthusiasm carried all leading measurements of equity market trends to new highs, the FT Industrial ordinary share index closing 8.9 up at 683.9.

Government securities also strengthened, selected longer-dated stocks jumping more than two points.

Sterling's resumed advance dispelled doubts about renewed exchange rate weakness which might have induced the authorities to postpone cuts in money market intervention rates. These were again left unchanged, but stock market enthusiasm was undaunted and equity values rose persistently throughout the afternoon.

Glaxo proved an exception, however, dropping to 795p on its first-half profits which were short of the more optimistic hopes, before rallying to close a net 80p down at 810p. Other miscellaneous industrial leaders pushed on to record levels on cheaper money hopes. Fisons gained some 19p to 602p, Unilever 15p to 828p and Beecham 10p to 403p.

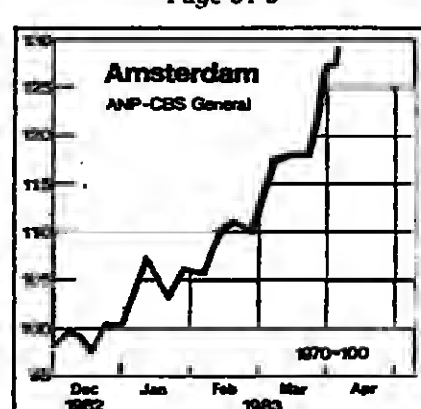
Thomas Tilling closed 13p dearer at 189p, after touching 196p, after its strong rejection of BTR's 185p cash or share-exchange bid, currently worth 198p per share; BTR fell to 408p before ending 14p down at 416p. Another unwelcome bid, General Felt's 520p per share cash offer for Sotheby's, left the auction house 35p higher at 525p.

Domestic and overseas investors singled out longer-dated gilts, still free of Government tap, and quotations soared. Longer mediums were also strong with rises of around 1%, but maturities in the region of the proposed new tap, Treasury 10% per cent 1989, ended only marginally better. Shorter-dated gilts joined in the advance.

Heavy buying interest from Johannesburg led to a renewed shortage of South African golds, and financials were highlighted by persistent and sizeable buying of Anglo-American, which moved up 14p to a 1982-83 peak of 540p, and De Beers, which edged up £ 1/4 to a high of £13 1/4.

Recently buoyant Australians continued to gain ground following further strength in overnight domestic markets. The leading diversified miners were most impressive, with CRA 7p strooger at a year's best of 277p.

Share information service, Page 34-5



EUROPE

Amsterdam attracts the Germans

WEST GERMAN investors made their presence felt in Amsterdam yesterday with purchases which provided strong gains for many leading issues in busy trading activity - a switch of attention which suggests a belief that the Dutch bourse may still have some way to go in its present upward trend - while many German stocks began to display signs of instability at their peak levels.

The Amsterdam indices attained new highs for the year, with the general index up two points at 129.1, the industrials 0.7 higher at 109 and the interpanals 3.3 up at 132.1.

Highs for the year were registered by Philips, up Fl 140 to Fl 47.20; Akzo, 60 cents stronger at Fl 59.70, and Royal Dutch/Shell, up Fl 2.40 at Fl 115.00.

Dutch bond prices slipped about 30 basis points on average during the session, indicating average government sector yields higher at 7.76 per cent.

Higher prices in brisk Paris trading in part reflected a 1/4 point cut in call money rates to 12% per cent. Institutional buying and foreign demand boosted prices with the foods and hotels sector the most sought after.

BSN gained Ffr 85 at Ffr 1,730, Carrefour Ffr 45 at Ffr 1,465 and Jacques Borel Ffr 6 at Ffr 155.

Milan attracted only thin trading dominated by technical factors connected with the end of the trading month.

The market reacted coolly to Friday's one-point cut in the discount rate to 17 per cent, with banking issues mixed and small gains for industrials, holding companies and property issues.

Zurich dealers identified interest rate uncertainty as the reason for keeping operators to the sidelines in a day of light volume and mostly steady prices. The weaker dollar and the bond market's stronger performance did provide some encouragement, however.

Credit Suisse eased as did Alusuisse on further analysis of its higher 1982 group loss announced on Friday.

An opening rally in Frankfurt ran out of momentum due to a lack of volume consolidating the upper levels, according to dealers, but the underlying tone remained firm.

Daimler went as high as DM 520 but drifted lower to finish at DM 517.50, a gain of 70 pf.

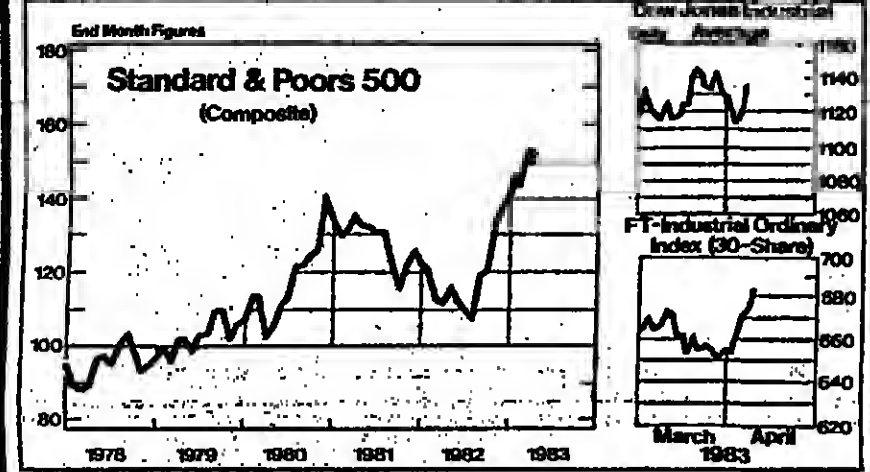
Yesterday's report by the West German Banking Association that the prospects for an economic recovery have improved helped to push the Commerzbank index to 920.3 from Friday's 918.4.

Banks were lower, with Deutsche Bank DM 4.30 down at DM 322.60, Dresdner off DM 2.50 at DM 169 and Commerzbank DM 3.90 poorer at DM 154.10.

The Brussels bourse was higher in moderate trading following the Wall Street lead, with the Belgian Shares index at 118.82 against 118.29.

Lively trading in Stockholm moved prices higher with pharmaceuticals, vehicles and forest groups in the limelight.

KEY MARKET MONITORS



STOCK MARKET INDICES

NEW YORK			
	Apr 11	Previous	Year ago
DJ Industrials	1136.42*	1124.71	842.94
DJ Transport	508.58*	508.37	348.84
DJ Utilities	124.72*	124.31	110.52
S&P Composite	153.95*	152.85	116.22

U.S. DOLLAR		STERLING		
	Apr 11	Previous	Apr 11	Previous
F	1.5270	1.5050	-	-
DM	2.4195	2.4250	3.89%	3.65%
Yen	237.70	239.30	363%	360.5%
Sw.	2.0000	2.0000	1.400%	1.400%

LONDON

FT-A All-share	428.22	423.01	321.19
FT-A 500	466.55	460.70	345.30
FT-A Ind	431.54	427.68	314.19
FT Gold mines	618.0	598.7	258.2
FT Govt secs	82.75	81.90	66.76

Company	2,120	2,134	4,164	4,114
Line	1441%	1444%	2201	2,174%
SPR	48.19	48.28	73.60	72.70
CS	1.2325	1.2345	1.8820	1.8830

INTEREST RATES	
----------------	--

TOKYO

Tokyo SE	611.03	610.54	530.18
AUSTRALIA			
All Ord.	537.3	528.7	468.8
Metals & Mins.	488.2	489.4	332.8
AUSTRIA			

£	10%	10%
SuFr	4%	4%
DM	5%	5%
FFr	13%	15%

FT London Interbank fixing
(offered rate)

AUSTRALIA

Belgian SE	118.92	118.29	101.23
CANADA			
Toronto Composite	2168.3*	2159.3	1806.0
Montreal			

U.S. Fed Funds	8 1/2%	8%		
U.S. 3-month CDs	8.95*	9.00		
U.S. 3-month T-bills	8.18*	8.35		
U.S. Treasury Bonds				
	April 11	Prev		
	Price	Yield	Price	Yield

AUSTRIA

	Credit Aktien	53.03	52.70	52.20
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NETHERLANDS

	Belgian SE	118.92	118.29	101.23
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CANADA

ANP-CBS Gen	125.1	127.1	91.7	\$1m points of 100%				
ANP-CBS Ind	109.0	108.3	72.9	June	90.81	90.84	90.86	90.62
				20-year National Gilt				
				\$50,000 32nds of 100%				
				June				
				106-30 107-05 108-20 105-26				
<hr/>								
NORWAY								
Oslo SE	161.28	157.73	101.88					
<hr/>								
SINGAPORE								

DENMARK

	Copenhagen SE	131.54	130.86	94.98
--	---------------	--------	--------	-------

FRANCE

J & P	1284.42	1265.84	582.01
SWITZERLAND			
Swiss Bank Ind	313.8	313.6	261.5
WORLD	Apr 8	Prev	Yr ago
Capital int'l	166.5	166.1	123.0

WEST GERMANY

	April 11	Prev.
London	\$430.00	\$421.50
Frankfurt	\$426.75	\$421.50
Zürich	\$427.50	\$421.50
Paris (fading)	\$429.23	\$423.58

HONG KONG

	Hang Seng	1041.36	1034.17	1208.86
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ITALY

	Banca Com.	205.38	204.46	191.16
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NETHERLANDS

	ANP-CBS Gen	128.1	127.1	91.7
ANP-CBS Ind	109.0	108.3	72.9	

NORWAY

	Oslo SE	161.28	157.73	101.88
--	---------	--------	--------	--------

SINGAPORE

	Straits Times	890.25	879.30	736.30
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SOUTH AFRICA

	Gold	858.2	n/a	468.4
Industrials	845.4	n/a	592.5	

SPAIN

	Madrid SE	closed	116.00	125.34
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SWEDEN

	J & P	1284.42	1265.84	982.01
--	-------	---------	---------	--------

SWITZERLAND

	Swiss Bank Ind	313.8	313.6	261.5
--	----------------	-------	-------	-------

WORLD

	Capital Int'l	166.5	166.1	123.0
--	---------------	-------	-------	-------

GOLD (per ounce)

	London	\$430.00	\$421.50
Frankfurt	\$426.75	\$421.50	
Zurich	\$427.50	\$421.50	
Paris (fiding)	\$429.25	\$423.58	
New York (April)	\$431.50	\$421.70	

* indicates latest pre-close figure



Production problems? EMS-INVENTA may have a solution

▲ Z02.14 «Egg-Head», sculpture by Hans Jörg Linde, Hombrechtikon, Switzerland

EMS has been producing synthetics for over 30 years. Using its own processes, it has developed products, production techniques and designed plants therefor. EMS enjoys a worldwide reputation as a specialist in polyamides and polyesters.

EMS also produces synthetic fibres of high quality. It works intensively on product development on the basis of its experience, research and innovative ability.

EMS builds and operates plants designed to supply clean energy from renewable raw materials. Energy in the form of gas, liquid fuels, electric power.

EMS has at its disposal an experienced team of engineers, technicians, planners and financial experts. This team possesses specialized know-how in manufacturing processes, in the construction and operation of production plants and in finance questions. Know-how gathered on the five continents of the world.

So if you're thinking of setting up production facilities somewhere - anywhere in the world in fact - or if you plan to build an industrial plant or to produce clean energy - or if you are simply interested in running a more profitably - then talk to us. We are a Swiss organisation strongly established on all five continents.

You can have complete confidence in EMS. EMS stands for quality and reliability, for know-how and customer service. Ask for our literature.



EMS-INVENTA AG, CH-7013 Dornat/EMS, Switzerland, Tel. 081 36 01 11, Telex 74 378

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

[illegible]**in 1983 & 1984**

Robert Guy of Rothschilds will chair the first day and give the Opening Address. The speaker platform will be as authoritative as at previous meetings in this well-regarded series.

For further details please contact
FINANCIAL TIMES CONFERENCE ORGANISATION

FINANCIAL TIMES CONFERENCE ORGANISATION

TELEPHONE: 01-621 1381

TELEX: LONDON 2347 FTCONF 8

Continued on Page 31

Prices at 3pm, April 11Continued on Page 32

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

Continued on Page 32

Sales figures unofficial. Yearly highs and low reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounting to 25% or more is shown, the new price is in parentheses. Dividend dates shown are for the stock only. Unless otherwise noted, rates of dividends are annual distributions based on the latest declaration

a-dividend also extraj. b-annual rate of dividend plus stock dividend c-leapending dividend, call-called d-new yearly issue e-earnings per share f-earnings per share g-earnings per share h-dividend in Canadian dollars, subject to 15% non-residence tax i-dividend declared after split-up or stock dividend j-dividend paid in cash k-dividend paid in stock l-dividend paid in stock and cash m-dividend meeting n-dividend declared or paid this year, an actual/relative issue with dividends in arrears n-new issue in the year 52 weeks. The high-low range begins with the start of trading and ends with the last trading day. o-offering price p-dividend declared or paid in preceding 12 months, plus stock dividend q-stock split Dividends begin with date of split. r-splits 1:1 s-when dividend declared t-dividend declared or paid this year, an actual/relative issue with dividends in arrears u-new yearly high v-trading began w-in bankruptcy or receivership or being reorganized x-dividend in U.S. dollars y-dividend in U.S. dollars z-computed, and when distributed, w-when issued, w-without w-x-dividend or stock rights, x-dividend distribution w-without warrants y-dividend and rights in full, y-dividend and rights in full

NOTES

PLANTATIONS

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Finance
51.5% 13

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1-1

2c.	40
	62

The following is a selection of regional and Irish stocks, the latter being quoted in Irish currency.

Quota: | Size:

BOC Grp.,	12	"Lamps"	10	Woolworth Hld.,	15
R.S.B.	12	G.L.	0		

Brown (L.J.)	4	Miles. & Spaw	16
Barton Ord.	24	Midland Bank	30

Gen. Electric	24	Sears	9	Univ. of Chicago	12
Edison	45	T.I.	13		

"Recent Issues" and "Rights" Page 37

1. *Journal of the American Medical Association*, 1997; 277: 1033-1036.

FINANCIAL FUTURES

Gilts firmer

[illegible]

Prices established around the 104.28 level at lunch before

LONDON				
THREE-MONTH EURODOLLAR \$1m points of 100%				
	Close	High	Low	Prev
June	\$0.51	\$0.59	\$0.45	\$0.53
Sept	\$0.55	\$0.57	\$0.46	\$0.55
Dec	\$0.29	\$0.32	\$0.24	\$0.31
March	\$0.15	—	—	—

CURRENCY RATES

April 11	Bank rate %	Special Drawing Rights	European Currency Unit
Belgium	—	1.0711574	0.0111
France	8½	1.08266	0.9825
Germany	0.54	—	1.1465
Italy	—	19.4125	15.51
Netherlands	11	58.1643	44.79
Spain	8½	0.8005	7.3909
Switzerland	4	2.82030	2.2505
United Kingdom	3½	2.95167	2.5535
Denmark	12	3.7, 85596	19.47
Sweden	5½	859.081	221.2
Austria	9	7.76130	6.675
Portugal	—	146.526	125.8
Greece	8½	0.93297	6.9311
Finland	4	5.23294	1.9068
Ireland	20½	n.a.	77.90

THE DOLLAR SPOT AND FORWARD

April 11	Day's spread	Closes	One month	%	Three months
UK	1,530.13-1,528.00	1,528.01-1,527.6	9.15-10.70 p.m.	9.96	3.30-10.25 p.m.
Ireland	1,074.00-1,107.00	1,105.15-1,107.00	9.75-10.65p.m.	6.63	1.35-1.65 p.m.
Norway	1,250.00-1,250.00	1,250.00-1,250.00	9.30-10.00 p.m.	1.00	1.00-1.00 p.m.
Netherlands	2,720.00-2,720.00	2,720.00-2,720.00	9.30-10.00 p.m.	1.00	2.30-2.80 p.m.
Denmark	1,250.00-1,250.00	1,250.00-1,250.00	9.30-10.00 p.m.	1.00	2.30-2.80 p.m.
9mark	5,550.00-5,550.00	5,550.00-5,550.1	9.30-10.00 p.m.	1.00	2.30-2.80 p.m.
V. Ger.	2,418.00-2,422.50	2,418.00-2,422.5	9.30-10.00p.m.	4.64	2.30-2.55 p.m.
France	1,700.00-1,700.00	1,700.00-1,700.00	9.30-10.00 p.m.	1.00	2.30-2.80 p.m.
Spain	135.25-135.85	135.25-135.85	10.00-10.00	-11.52	3.25-4.25 p.m.
Italy	1,401.00-1,402.00	1,401.00-1,402.00	8.35-10.10 p.m.	-7.28	28-29 p.m.
Norway	1,250.00-1,250.00	1,250.00-1,250.00	9.30-10.00 p.m.	1.00	2.30-2.80 p.m.
France	1,700.00-1,700.00	1,700.00-1,700.00	9.30-10.00 p.m.	1.00	2.30-2.80 p.m.
Sweden	1,700.00-1,700.00	1,700.00-1,700.00	9.30-10.00 p.m.	1.00	2.30-2.80 p.m.
Finland	1,250.00-1,250.00	1,250.00-1,250.00	9.30-10.00 p.m.	1.00	2.30-2.80 p.m.
Austria	1,700.00-1,700.00	1,700.00-1,700.00	9.30-10.00 p.m.	4.82	18.00-15.00p.m.
Switz.	2,045.00-2,046.00	2,045.00-2,046.00	9.40-10.00p.m.	6.37	2.77-2.72 p.m.

A UK spread related to the U.S. dollar. Foreign currencies are listed in U.S. dollars and p.m. stands for Pacific Market.

• $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (the probability of getting heads on both coins) = $\frac{1}{4}$ of the time.

Apr. 11	Pound Sterling	U.S. Dollar	Deutschemk	Japanese Yen	French Franc	Swiss Franc	Dutch Guilder	Italian Lira	Canada Dollar	Belgian Fr.
Pound Sterling	1	1.537	3.698	36.34	11.078	81.288	4.168	9801.	1.938	75.80
U.S. Dollar	0.655	1.	2.481	237.8	3.396	2.066	2.366	1.363	48.20	
Deutschemk	0.270	0.413	1.	2.925	0.885	1.137	538.3	0.809	10.61	
Japanese Yen 1,000	2.753	4.304	10.18	1,000.	30.49	9.008	1,607.	0.911	202.6	
French Franc 10	0.903	1.379	2.339	289.0	10.	2.832	3.745	1.969	66.46	
Swiss Franc	0.939	0.940	1.185	110.2	3.644	1.	1.334	704.3	0.602	23.25
Dutch Guilder	0.240	0.366	0.887	87.16	0.057	0.751		588.1	0.459	17.56
Italian Lira 1,000	0.584	0.654	1.680	165.0	0.038	2.430	1.	1,000.	0.055	34.44
Canadian Dollar	0.842	0.911	1.966	193.0	3.898	1.660	0.514	1170.		80.11
Belgian Franc 100	2.481	2.469	10.33	1,033.	3.396	2.066	2.366		2.557	

Bank dampens euphoric mood

Discount by Market	Treasury Bids \$	Eligible Bids \$	Free Tender Bids \$
Deposits			
10%-11			
10%-10 1/2			
10 1/2%-10 1/4	10%-10 1/4	10%	10 1/2
10 1/4%-10 1/8	10 1/4%-10 1/8	10 1/4	10 1/4
10 1/8%-10 1/16	10 1/8%-10 1/16	10 1/8	10 1/8
10 1/16%-10 1/32	10 1/16%-10 1/32	10 1/16	10 1/16
10 1/32%-10 1/64	10 1/32%-10 1/64	10 1/32	10 1/32
10 1/64%-10 1/128	10 1/64%-10 1/128	10 1/64	10 1/64
10 1/128%-10 1/256	10 1/128%-10 1/256	10 1/128	10 1/128
10 1/256%-10 1/512	10 1/256%-10 1/512	10 1/256	10 1/256
10 1/512%-10 1/1024	10 1/512%-10 1/1024	10 1/512	10 1/512
10 1/1024%-10 1/2048	10 1/1024%-10 1/2048	10 1/1024	10 1/1024
10 1/2048%-10 1/4096	10 1/2048%-10 1/4096	10 1/2048	10 1/2048
10 1/4096%-10 1/8192	10 1/4096%-10 1/8192	10 1/4096	10 1/4096
10 1/8192%-10 1/16384	10 1/8192%-10 1/16384	10 1/8192	10 1/8192
10 1/16384%-10 1/32768	10 1/16384%-10 1/32768	10 1/16384	10 1/16384
10 1/32768%-10 1/65536	10 1/32768%-10 1/65536	10 1/32768	10 1/32768
10 1/65536%-10 1/131072	10 1/65536%-10 1/131072	10 1/65536	10 1/65536
10 1/131072%-10 1/262144	10 1/131072%-10 1/262144	10 1/131072	10 1/131072
10 1/262144%-10 1/524288	10 1/262144%-10 1/524288	10 1/262144	10 1/262144
10 1/524288%-10 1/1048576	10 1/524288%-10 1/1048576	10 1/524288	10 1/524288
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10 1/8388608%-10 1/16777216	10 1/8388608%-10 1/16777216	10 1/8388608	10 1/8388608
10 1/16777216%-10 1/33554432	10 1/16777216%-10 1/33554432	10 1/16777216	10 1/16777216
10 1/33554432%-10 1/67108864	10 1/33554432%-10 1/67108864	10 1/33554432	10 1/33554432
10 1/67108864%-10 1/134217728	10 1/67108864%-10 1/134217728	10 1/67108864	10 1/67108864
10 1/134217728%-10 1/268435456	10 1/134217728%-10 1/268435456	10 1/134217728	10 1/134217728
10 1/268435456%-10 1/536870912	10 1/268435456%-10 1/536870912	10 1/268435456	10 1/268435456
10 1/536870912%-10 1/1073741824	10 1/536870912%-10 1/1073741824	10 1/536870912	10 1/536870912
10 1/1073741824%-10 1/2147483648	10 1/1073741824%-10 1/2147483648	10 1/1073741824	10 1/1073741824
10 1/2147483648%-10 1/4294967296	10 1/2147483648%-10 1/4294967296	10 1/2147483648	10 1/2147483648
10 1/4294967296%-10 1/8589934592	10 1/4294967296%-10 1/8589934592	10 1/4294967296	10 1/4294967296
10 1/8589934592%-10 1/17179869184	10 1/8589934592%-10 1/17179869184	10 1/8589934592	10 1/8589934592
10 1/17179869184%-10 1/34359738368	10 1/17179869184%-10 1/34359738368	10 1/17179869184	10 1/17179869184
10 1/34359738368%-10 1/68719476736	10 1/34359738368%-10 1/68719476736	10 1/34359738368	10 1/34359738368
10 1/68719476736%-10 1/137438953472	10 1/68719476736%-10 1/137438953472	10 1/68719476736	10 1/68719476736
10 1/137438953472%-10 1/274877906944	10 1/137438953472%-10 1/274877906944	10 1/137438953472	10 1/137438953472
10 1/274877906944%-10 1/549755813888	10 1/274877906944%-10 1/549755813888	10 1/274877906944	10 1/274877906944
10 1/549755813888%-10 1/1099511627776	10 1/54975581388		

Apr. 11 1958	Sterling Certificates of deposit	Interbank	Local Authority deposits	Local Auth. debt bonds	Finance Company Deposits	Commercial Deposits
Overnight	—	10-18	—	—	—	114
2 days notice	—	—	10%-10 1/2	—	—	11
7 days or 7 days notice	—	—	—	—	—	10
One month	10%-10 1/2	10%-11 1/4	10%-10 1/2	10%-10 1/2	18%	10%
Two months	10 1/4-10 1/2	10%-10 1/2	10%-10 1/2	10%-10 1/2	18%	10%
Three months	10 1/4-10 1/2	10%-10 1/2	10%-10 1/2	10%-10 1/2	18%	10%
Six months	10 1/2-10 3/4	10%-10 1/2	10%-10 1/2	10%-10 1/2	18%	10%
Nine months	10 1/2-10 3/4	10%-10 1/2	10%-10 1/2	10%-10 1/2	18%	10%
One year	10 1/2-10 3/4	10%-10 1/2	10%-10 1/2	10%-10 1/2	18%	10%
Two years	10 1/2-10 3/4	10%-10 1/2	10%-10 1/2	10%-10 1/2	18%	10%

MONEY RATES

EURO-CURRENCY INTEREST RATES						
(Market closing rates)						
Apr. 11	Short term	7 days notice	Month	Three Months	Six Months	One Year
sterling	104.11	105.6-107	104.19-104	101.19-101	102.19-102	104.19-104
U.S. dollar	81.9-81	80.4	81.8-81	80.8-80	80.8-80	81.8-81
Can. dollar	81.0	0.10	80.8-80	79.8-79	79.8-79	80.8-80
Sw. franc	85.6-85	85.6-85	84.6-84	83.6-83	83.6-83	84.6-84
S. franc	04.6-04	04.5	04.4-04	04.3-04	04.3-04	04.4-04
Deutschmark	44.4-44	44.4-44	44.4-44	43.4-43	43.4-43	44.4-44
French franc	12.4-12	12.4-12	12.4-12	12.4-12	12.4-12	12.4-12
Italian lire	16.17-16	16.17-16	16.17-16	16.17-16	16.17-16	16.17-16
Belg. franc	11.19-11	11.19-11	11.19-11	11.19-11	11.19-11	11.19-11
Spain	11.12-12	11.12-12	11.12-12	11.12-12	11.12-12	11.12-12
Yen	91.6-91	01.6-01	01.6-01	01.6-01	01.6-01	01.6-01
Yen (6 mos)	91.6-91	01.6-01	01.6-01	01.6-01	01.6-01	01.6-01
Aus. \$ (6 mos)	91.6-91	01.6-01	01.6-01	01.6-01	01.6-01	01.6-01

FRANCE

APRIL 9 (WED.)	APR 10 (THU.)	APR 11 (FRI.)	APR 12 (SAT.)	APR 13 (SUN.)	APR 14 (MON.)	APR 15 (TUE.)
FT LONDON INTERBANK FIXING						
(11.00 a.m. APRIL 11)						
5 month U.S. dollars			5 months U.S. dollars			
bid 0.516	offer 0.516		bid 0.516	offer 0.516		

NETHERLANDS

NEW YORK	
Prime rate	10 1/2
Fed funds (lunch-time)	8 1/2-8 3/4
Treasury bills (13-week)	8.15
Treasury bills (26-week)	8.24
GERMANY	
Lombard	5.0
Overnight rate	4.95
One month	5.05
Three months	5.20
Six months	5.25

Costa Rica..... **Colombia**
Cuba..... **Cuba**

Discount rate	3%
Overnight rate	5-5.5%
90 days	5-5.5%
Three months	5-5.5%
Six months	5-5.5%

\$ CERTIFICATES OF DEPOSIT

One month	\$2.00-\$3.19
Three months	0.00-\$1.10
Six months	\$1.10-\$3.20
One year	\$3.25-\$5.55

LONG TERM EURO \$

LONG TERM EURO S

Two years	10% - 10%
Three years	10% - 11%
Four years	11% - 11%
Five years	11% - 11%

SDR LINKED DEPOSITS

One month	8% - 8%
Three months	8% - 8%
Six months	8% - 8%
One year	8% - 8%

ECU LINKED DEPOSIT

One month		\$ ⁷ / ₈ " - \$ ⁹ / ₈ "
Three months		\$ ⁶ / ₈ " - \$ ⁷ / ₈ "
Six months		\$ ⁵ / ₈ " - \$ ⁶ / ₈ "
One year		\$ ⁴ / ₈ " - \$ ⁵ / ₈ "

0) N/A	Malawi
F) 61.08	Malawi
	Malawi

Cape Verde	Kap Verde
Cashew	Kassia
Cassiopeids	Koruna
Denmark	Danish Krone
Dilemma	Dilemma
Dominica	Dominican
Dominion Republic	Caribbean (Pean)
Ecuador	Guano
Egypt	Egyptian £
Equatorial Guinea	Kilote
Equatorial Guinea	Equatorial Birr
Falkland Islands	Falkland is
Faro Islands	Danish Krone
Finland	Finn
France	French Franc
French Equatorial Africa	French Franc
French Indo-China	Local Franc
French Pacific Is.	C.F.P. Franc
Gabon	G.A.P. Franc
Germany	German Mark
Germany (East)	Eastmark
Germany (West)	Westmark
Ghana	Ghana
Gibraltar	Gibraltar £
Greece	Drachma

- That part of the F

(controlled). ¹ Now one official rate. ² are not members of IMF. ³ Based on gr
(3) Non-essential imports and private use-essential imports. (5) Free rate for

16	684.50
1	1.6390
	0.810

0.7680	Burkina Faso
(gross) 0.80	Burundi
1.0910	Cambodia
17.14.10	Cameroon
10.2.1	Canada
8.108	Cape Verde
1.5.970	Cayman Islands
99.63.85	Central African Republic
10.70	Chad
1.3.9520	China
100.00.65	Cote d'Ivoire
1.0	Croatia
1.9	Cuba
15.11	Cyprus
5.8888	Dominican Republic
11.078	Dominica
1.0	Ecuador
11.070	Egypt
885.78	El Salvador
1.0	Equatorial Guinea
2.6973	Eritrea
5.6485	Estonia
1.0	Falkland Islands
127.175	Fiji
	Finland
	France
	Gabon
	Gambia
	Germany
	Ghana
	Greece
	Guatemala
	Honduras
	Hong Kong
	Iceland
	India
	Indonesia
	Iran
	Israel
	Italy
	Jamaica
	Japan
	Kazakhstan
	Kenya
	Korea
	Kuwait
	Lao
	Latvia
	Lebanon
	Lesotho
	Lithuania
	Madagascar
	Mali
	Maldives
	Mexico
	Moldova
	Morocco
	Mozambique
	Netherlands
	New Zealand
	Nicaragua
	Niger
	Nigeria
	Oman
	Pakistan
	Panama
	Paraguay
	Peru
	Poland
	Romania
	Saudi Arabia
	Senegal
	Seychelles
	Singapore
	Slovakia
	Slovenia
	South Africa
	Spain
	Sweden
	Switzerland
	Taiwan
	Tanzania
	Togo
	Tunisia
	Turkey
	Ukraine
	United Kingdom
	USA
	Venezuela
	Zimbabwe

y In Africa formerly Eng

(U) Unified rate. Applicable to all trade rates except Russian ruble. (1) Export rates applicable. (4) Preferential rate for luxury imports, remittances of money ab-

New Taiwan 8

[illegible]

05 French Equivalent: 24

essential goods. (2) Controlled rate for public sector debt and essential imports and foreign travel.

12

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... agreement with Egypt and who
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... (B) Government controlled for

Co

14



FINANCIAL TIMES SURVEY

Commuter Aircraft and Air Services

Although the recession has severely affected world civil aircraft markets, commuter operations are surviving better than most other sectors. A world market of about 6,500 aircraft, worth about \$25bn, is forecast up to the year 2000

Strong growth ahead

By MICHAEL DONNE, Aerospace Correspondent

MOST PEOPLE are now familiar with the domestic and international operations of the major scheduled and charter passenger airlines, but throughout the world there is a rapidly growing sector of transport aviation, of which comparatively little is heard, but which is becoming increasingly significant.

Usually described as "commuter" aviation, this broadly represents that growing area of commercial air transport operations lying between the activities of the major airlines at one end of the scale, and the even wider arena of "general aviation" at the other (the latter in turn including business and executive flying, agricultural aviation, flying training, leisure flying and the vast range of other aeronautical activities).

The term "commuter" aviation is in some ways misleading. In its purest interpretation, it covers the provision of regular air services between small, local communities and larger centres where bigger airports, well served with long-haul domestic and international scheduled air services, are available — the so-called "hub and spoke" pattern.

But the concept is being increasingly widened. At the lower end of the scale, it includes services linking small communities many of which previously had no air services at all, called "local service" operations, and at the upper

end, operations over longer distances, often linking major centres and even sometimes rivaling the operations of bigger airlines, so that they effectively become "regional" operations.

The distinctions between "local service", "commuter" and "regional" operations are thus becoming increasingly blurred, and it is often difficult to differentiate between them. A more accurate description of all these operations, therefore, is "third-level" to distinguish them from the larger short-haul and long-haul domestic and international operations of the major airlines, and from the wider arena of "general aviation".

Spectacular

The development of this type of aviation has been most spectacular in the U.S. Over the period 1971-81, U.S. third-level airlines traffic grew at an average annual rate of 15 per cent, compared with total U.S. scheduled airline growth of 5.8 per cent a year. Full figures for 1982 are not yet available, but the indications are that this growth pattern was maintained, with only a few exceptions.

The expansion has been especially significant since the deregulation of the U.S. domestic air transport industry, which created virtual freedom of entry for airlines of all kinds on to new routes.

Outside the U.S., the upsurge in this type of aviation has also been significant, if less dramatic. While it is estimated that about 95 per cent of last year's total of 78m scheduled service passengers worldwide were carried by about 200 major airlines in the 144 member-states of the International Civil Aviation Organisation, the remaining 5 per cent of the traffic, or about 38m passengers, was carried by upwards of 1,000 "third-level" operators.

Of these, about 300 are located in the U.S., operating alongside some 4,000 air taxi operators, with about 300 in Western Europe, with the rest scattered about the rest of the world. Many of these operators are very small, often with only one or two aircraft involved, while some are very large, especially in the U.S. But they are nevertheless performing a valuable service in bringing passenger and cargo transport to a wide cross-section of local communities which otherwise

might not have air services at all.

No matter how they may be described — "third-level", "commuter", "local service" or "regional" — all of these operations have several elements in common. They are short-haul in nature (up to about 200 to 300 miles). They mostly use small, twin-engine turbopropeller powered aircraft, generally seating up to about 20 to 30 passengers a time (the official U.S. definition of a "commuter" carrier is one using aircraft seating fewer than 60 passengers or carrying less than 18,000 lbs of cargo on regularly scheduled operations).

They are all comparatively low-cost, no-frills, cheap-fare operations; and they are all capable of using the most simple, rugged airfields and other ground facilities, as well as those of more sophisticated airfields.

All these operations have become possible because of the development of a wide (and expanding) range of small, light twin-engine transport aircraft, ranging from about four to six seats upwards, but mostly in the 20-30 seater category, although there are some larger, 50-seaters such as the de Havilland Canada Dash Seven.



A BAe 146 four-engine jet flying over Sydney Harbour during a world demonstration tour. The largest of the commuter aircraft, the 146 nevertheless can land on semi-prepared airstrips with minimum ground facilities

land Canada Dash Seven.

Prospects for the growth of third-level air transport through the rest of this decade are considered good, especially in the U.S. Western Europe, Australia, Canada, and Latin America, while the rapidly developing economies of countries in South-East Asia are regarded as a particularly encouraging breeding ground for third-level aviation.

Trunk routes

Overall, the growth in this type of aviation is expected to produce a requirement for some 6,500 aircraft of the third-level variety by the end of this century, worth about \$25bn in current values.

In the UK, air services linking major cities in the provinces with each other and with London have existed for many years, for example on the trunk routes between London and Glasgow and Edinburgh, Manchester and Birmingham. The growth of commuter-style services on routes with less dense traffic has been a more recent development, but is now one of the more rapidly expanding elements in UK air transport. There are various reasons for

this. One is the rising cost of surface travel, whether by rail or car, coupled with unreliability on the railways (last year's rail strikes did much to encourage commuter air travel). Another is the increasing availability of aircraft much more suitable for short-distance air transport than some of the larger jet or even turbo-prop aircraft that have been used in the past.

On many occasions in the post-war history of UK internal air transport, short-haul inter-city air services have been started, only to founder because the traffic available on the routes has proved inadequate to enable large airlines to be operated economically.

The introduction of smaller,

20- to 30-seat turbo-prop aircraft such as the Short 330 and the Embraer Bandeirante, for example, have done much to revitalise some flagging UK inter-city air routes and stimulate the development of others. As the range of available types of aircraft widens, so does the scope for the introduction of new third-level air services, and by carefully tailoring the size of aircraft to the traffic available, it is now possible for almost any air service to be run profitably.

Another factor behind the growth of third-level aviation in the UK has been the emerging demand by businessmen for cross-country links, as opposed to the customary trunk-route services. The tendency for

industries of all kinds to locate offices and factories in new development areas has helped to generate this demand, and although in some cases the evolution of cross-country air services has been slow, there is now strong evidence that this type of third-level aviation will grow.

Operators providing such services already include Air UK, Air Ecosse, Birmingham Executive Airways, British Island Airways, Brynmor Airways, Genair, Inter-City Airlines, Loganair, Manx Airlines and Metropolitan Airways, all of which can be described as "commuter" type operators.

In addition, however, there are some bigger scheduled operators of domestic and international regional air services, some of whose activities can also be fairly described as commuter operations, including British Caledonian, British Midland and Dan-Air.

A more recent trend has been for some of the smaller commuter operators to join forces with larger, internationally scheduled airlines, so as to stimulate traffic growth by pro-

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Space Ship!



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Space is the operative word on board the new wide-bodied Shorts 360 commuter aircraft. Space for 36 passengers to relax in air-conditioned comfort; space to stand up and walk about; space for overhead lockers and wide-view windows; space for galley and toilet facilities; space for a stewardess to provide in-flight cabin service.

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expansion in the '80's becomes pretty well invincible. Especially when you consider that it is now in airline service — at least two years ahead of its closest competitor!

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Comparison of cross-sections

- ① 360
- ② DASH-8
- ③ SF 340
- ④ EMB 120

COMMUTER AIRCRAFT II

Fuel cost rises behind U.S. expansion

COMMUTER AIRLINES in the U.S. are going through a period of rapid growth. In 1982, the number of passengers boarding commuter aircraft — defined broadly as those with 60 seats or less — jumped from 15.4m to 18.5m. That was double the level five years earlier.

This still represents a modest proportion of total airline passenger traffic in the U.S. — roughly 6 per cent — but the commuters are expected to increase their share of the market significantly over the next decade. The Federal Aviation Authority has projected 43m passengers by 1993 in this category, and there are those in the industry who think that this view is too conservative.

The main reason for this growth is that the major airlines have been suspending their services to small cities across the continent on a large scale. In the past 18 months alone, the jet airline operators have pulled out of 66 communities and this withdrawal by the bigger airlines — which looks likely to be a continuing process — has provided a major business opportunity.

What is not so clear is just why the majors have been abandoning services in this way. The obvious temptation is to link the trend to the deregulation of the U.S. airline industry, which occurred in 1978. Although the commuter airlines themselves were never regulated by the Civil Aeronautics Board, one of the major arguments presented by opponents of entry and exit freedom in the airline market was that small communities would lose air ser-

vices as a result of such a move. However, this pattern of route abandonment by the larger airlines extends back for a lot longer than five years. A Department of Transportation study in 1975 found that in the five years after 1970, certificated airlines had reduced the number of small cities they served by 14 per cent, and cut back flights on such routes by nearly a quarter.

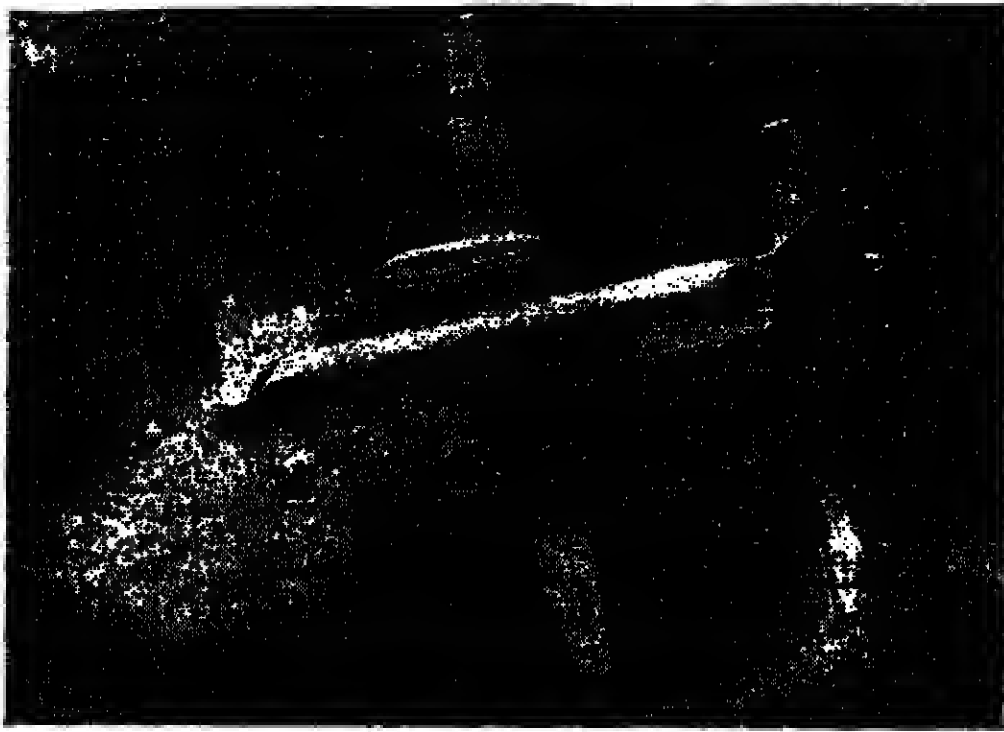
So there is a more fundamental explanation for the shift to commuter services. Most markets serving small towns are short hauls, and rising fuel costs have made jet operators significantly less competitive on such routes compared to small commuter aircraft on ground transport.

For small turboprops, about three gallons of fuel is required per available seat for a 100 mile passenger flight; a small jet requires more than four gallons per available seat.

In practice, the differential is even greater. A recent study by the Civil Aeronautics Board's office of economic analysis argued that jets were simply too large to operate at high load factors in small markets. As an example, it said that if ten passengers were carried over the 100 mile route, the fuel used per passenger would be about six gallons in a 19-seat turboprop and about 45 gallons in a 110-seat jet.

In addition, the speed advantage of jets is not substantial on short-haul routes.

The conclusion is that a good number of the services which have been given up by the bigger carriers since 1978 would



The Saab-Fairchild 340 on initial flight testing. The withdrawal of thirsty jets from many U.S. services has opened the market to new turbo-props.

have gone even if deregulation had not occurred.

In addition, there have been important changes in the nature and scale of government subsidies for local air services. Outlays in the biggest category, the so-called Section 406 subsidies, fell from \$94m in 1981 to \$45m in 1982. Appropriations for subsidies under this heading were reduced by about half for fiscal 1983 and were eliminated for fiscal 1984.

Impact

Overall, the CAB's office of economic analysis found that service to small communities had declined slightly as a result of all these economic and regulatory changes—but the impact had been by no means uniform.

In the towns where trunk and local airlines had dropped services, total departures had actually risen by 28 per cent—and this increased service had come entirely from the expanded use of commuter air-

craft. Jet service had declined by 90 per cent, while large propeller service was down by a half.

Despite the increase in volume, the commuter airlines and their suppliers did not escape the rigors of the recession in 1982. A number of marginal airlines have gone out of business, reducing the number of commuter aircraft operators in the U.S. from 277 in 1981 to 245 at the beginning of this year. Financial uncertainty combined with the overhang of capacity which followed a high level of sales in 1980 and 1981, has also put a nasty squeeze on some of the aircraft manufacturers in this field.

Yvich Industries, which claims to account for nearly a third of the worldwide fleet of 15 to 20 passenger commuter aircraft in service through its Metron series, delivered only 17 aircraft in this category in the U.S. last year, compared with 28 in 1981. The company bitterly, and unsuccessfully, pro-

tested against what it claimed was unfair trade competition from Embraer, the Brazilian manufacturer of the Bandeirante commuter aircraft.

However, Fairchild remains convinced that there will be substantial growth in this sector of its business over the next decade, and believes that the recovery will get under way in the near future. It is also very optimistic about the prospects for its new 34-passenger 340 turboprop aircraft, which it is developing on a joint venture basis with Saab-Scania of Sweden. Deliveries are due to start in April next year, and there are firm orders for over 80 of these machines.

Fairchild is not alone in thinking that this will be a growth business. The Regional Airline Association believes that there could be a demand for between 1,200 to 1,500 commuter aircraft in the U.S. over the next decade.

Richard Lambert

Vital services transform developing countries

THE CONCEPT of "third-level" aviation takes on a different meaning outside the industrialised and more aviation-orientated countries of the West.

"Commuter" aviation as it is in the U.S. and Western Europe—linking small communities together and with larger cities and airports—is also growing rapidly in a number of countries, such as Japan, Australia and Brazil.

But in those countries, too, and in many other less well-developed nations, "third-level" aviation frequently ranks much higher in the scale of aviation operations.

While many of these countries may have flag airlines, with jet scheduled services and often also domestic services linking major towns or cities, beneath that level there is often a yawning gulf. To fill it what are described in the U.S. and Western Europe as "third-level" operations in fact become much more important.

Tours

In the developing countries the entire air transport infrastructure outside the major international airports (which themselves are often far removed from the marble, steel and glass extravaganzas found in the U.S. and Europe) tends to be proportionately much less developed. What may well be regarded in the West as "commuter" style aircraft, are

in the developing world the mainstay of the country's front-line air fleet, spearheading not only the country's technological progress, but in many ways also its economic and even social development.

In countries where surface transport is poor, or even nonexistent, because of the terrain or climate difficulties, air transport is increasingly filling the communications role, opening up communities that for many centuries have been isolated.

It is not only easier and quicker, but also considerably cheaper in terms of both initial capital and running costs, to build small airstrips in remote places to facilitate the use of small, short-take off and landing transport aircraft.

Thus, the emergence during the recent years of the growing range of such aircraft has not only substantially altered the scope of air transport in many industrially and economically

developed countries but has even more dramatically revolutionised the political, economic and sociological development of many poorer nations—and in both the changes are still taking place, and even gathering momentum.

This vital fact has not been lost upon the manufacturers. In some cases, manufacturers who originally designed and built their aircraft some years ago for the more sophisticated commuter-style environments of North America and Western Europe have been obliged to redesign them with additional features to make them more suitable for the more rugged environments of the developing world.

More recently, the growing inventory of aircraft types has included many designed specifically for use in the wide range of terrain and climates from the Arctic to the tropics, while also being suitable for the commuter-style requirements of the North American and West European markets.

It is estimated, for example, that well over 60 per cent of all the light transports sold in recent years have gone to countries of the developing world, where they are employed in a wide variety of tasks going even beyond passenger and cargo transport, including particularly agricultural duties.

There are usually no restrictions on the uses to which a customer can put his aeroplane once he has bought it and, as a comparatively expensive asset for the community as a whole in a developing country, any aircraft is usually employed to the maximum, with utilisation rates (in terms of hours per day) that often are the envy of commuter-operators in the developed countries. They are also flown in weather conditions and terrain that frequently, no Western commuter-operator would want to experience.

In many regions some aircraft have become famous for the roles they have played, and are playing, in promoting economic and social development. For example, the de Havilland Canada Twin Otter, of which over 800 have been sold, is one of the great pioneering aircraft of the developing world in the past 30 years or so.

In the same category are the Embraer Bandeirante (over 400 sold), and the British Pilatus Britten-Norman Islander, while other aircraft such as the Short

Skyvan and 320 have also established high reputations for themselves in this growing market for rugged, reliable air transport.

It is now accepted in the "third-level" aviation manufacturing industry that the widest possible market lies with aircraft capable of meeting fully the range of operational demands likely to be incurred in the countries of the developing world, with their extremes of physical operating environments and often also the widely varying capabilities of the operators themselves.

An aircraft that can serve adequately in the comparatively luxurious surroundings of the commuter-style environment while also being capable of surviving a much tougher life, frequently involving heavy landings on unprepared strips in jungle or mountain areas in violent and rapidly changing weather conditions, is the aircraft most likely to win orders.

It is significant that even British Aerospace with its four-engine jet regional airliner, the 146, the biggest transport currently on offer in the third-level aviation market, has been expressly designed to meet these criteria.

Spearhead

That aircraft has proved its capabilities in two long arduous sales and demonstration tours that together covered close to 100,000 miles of flying through the Middle East, south east Asia, the Far East, Australia and Africa. In some instances, it was the first jet ever to use some remote airstrips, while it also amply demonstrated its ability to operate in all kinds of weather and terrain with a high degree of reliability.

It is likely that, as aviation throughout the developing countries expands, the greater part—perhaps as much as 70 per cent—of the anticipated market for about 6,500 "third-level" aircraft worth \$25bn by the end of this century will come from the developing countries of the Third World. This is why the manufacturers are now paying so much attention to their designs to ruggedness and reliability as well as fuel economy, apart from such basic operational capabilities as short take-off and landing.

Michael Donne

When it comes to maintenance even the manufacturers think we're fantastic.

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We restored the engine housing back to its original condition.

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Finance chases market

BECAUSE MOST of the operators involved in third-level aviation worldwide are small by comparison with the major scheduled airlines, their aircraft needs are also limited. They do not place big, multi-aircraft orders worth hundreds of millions of dollars, but rather they develop slowly, buying at best one or two aircraft a year, expanding their fleets as traffic growth dictates.

As with many of the bigger jets, the placing of an order is frequently dictated not so much by the merits of the aircraft involved or its suitability for a particular task as by the availability of finance at favourable terms.

The price range in the third-level aviation business is exceptionally wide, from about \$350,000-\$400,000 for a two-seat Pilatus Britten-Norman Islander up to about \$12m to \$13m for a British Aerospace four-engine 146 regional jet airliner.

The sources of such finance are very much the same as for the larger jet airliners. Most of the banks involved in the larger jet deals are also prepared to lend money to smaller operators for third-level aircraft types, but in addition, there are even specialist organisations, such as Airlease International Management in the UK, who can help in this field.

There is also a wide network of experienced aircraft agents and dealers, especially in the U.S., the UK and Western Europe, many of whom specialise in the aircraft of one or more specific manufacturers, and who have either direct access to sources of finance or can smooth the path of the would-be purchaser in raising the necessary funds.

Many of the operators involved use their own local sources of finance, such as banks in the countries from which they operate. But the major international banks have been showing an increasing interest in this type of business in recent years, not least because of a perhaps belated recognition by some of them of the potentially very large size of the market.

The problem for the banks and other financing institutions is to be able to identify from the potentially good loan and investment opportunities in what is likely to be a rapidly burgeoning market, once the effects of the business recession worldwide have passed.

This is a much more difficult problem than is often realised. The third-level aviation industry is a far less well-documented aspect of international civil aviation than is, for example, the first-level scheduled airline

industry. In many countries, especially in the Third World, detailed statistics of third-level aviation operations are either totally non-existent or at best are patchy and unreliable, and it can take banks and other financing institutions a long time to build up a reliable background of data upon which to base investment decisions.

Governments are not normally involved, largely because the third-level operators in many countries are privately owned. Thus, the banks and other financing institutions have been obliged to rely heavily on the manufacturers and their dealers and agents for much of the information required upon which to base loan decisions.

This, in turn, has led to a situation where the manufacturers and dealers themselves do much to help the potential purchaser find the cash to buy the aircraft.

This trend has spread through the entire aircraft manufacturing business, from the big jet field through to the smallest

aircraft types. Some big jet builders, such as McDonnell Douglas of the U.S., have set up their own financing companies specifically to help potential customers to buy their aircraft. Other builders have made special arrangements of their own with banks and other lenders, so that cash is made available for potential purchasers who are creditworthy.

One example of this direct financial relationship between the manufacturer and the operator is the \$80m scheme for financing sales of the Type 330 and 360 commuter airliners built by Short Brothers of Belfast, arranged between the company and a group of U.S. and UK banks.

Under this scheme, whenever Shorts sells one of those airliners to a U.S. operator, it will be able to arrange the financing at the time without further recourse to the banks in each case.

The scheme was put together M.D.

Strong growth

CONTINUED FROM PAGE ONE

viding direct connections at major airports with long-haul operations.

Another development in the UK third-level airline scene that could expand rapidly is the provision of more international links from UK provincial cities to nearby Continental centres, such as Amsterdam and Brussels, to enable UK passengers to connect at those airports with long-distance flights, thereby avoiding travel to London.

The argument for these operations is that for many businessmen, especially in the North, the links currently provided from their home points to London (either Heathrow or Gatwick) do enable them to pick up long-distance flights, are either inadequate, or the distance involved is greater (and the fare therefore more expensive) than flying to the nearest Continental hub airport, usually Amsterdam Schiphol.

Much has been made of this factor by the Schiphol authorities, who have conducted a vigorous campaign in the UK on the theme that Schiphol is effectively not only already the "third airport" for London, but also far closer to and more convenient for travellers from the Midlands and the North seeking connections to long-

haul flights. The only effective counters to this must be both a further extensive development of adequate commuter air links between the provinces and London, and the provision of more long-distance international air services from the provincial cities themselves, such as Manchester. The recent opening of Manchester's 300-ft runway extension, to give a 10,000-ft runway, is already encouraging more long-distance operators to use that airport.

At the same time, however, there is also an undeniable demand, especially from the business community, for more direct international short-haul air links between provincial cities and Continental destinations. Hitherto, many airlines have been reluctant to introduce such services because potential traffic densities have been insufficient to make regular operations with even the smallest twin-engine short-haul jet airliners economic.

But, here again, the increasing availability of smaller, 20- to 30-seat twin turbo-prop airliners is changing that situation, and it would be reasonable to expect an increase in the number of such services in the future, especially as the recession fades and business confidence expands.

While London struggles to find a third international airport, British Caledonian announce eleven of them.



Genair.



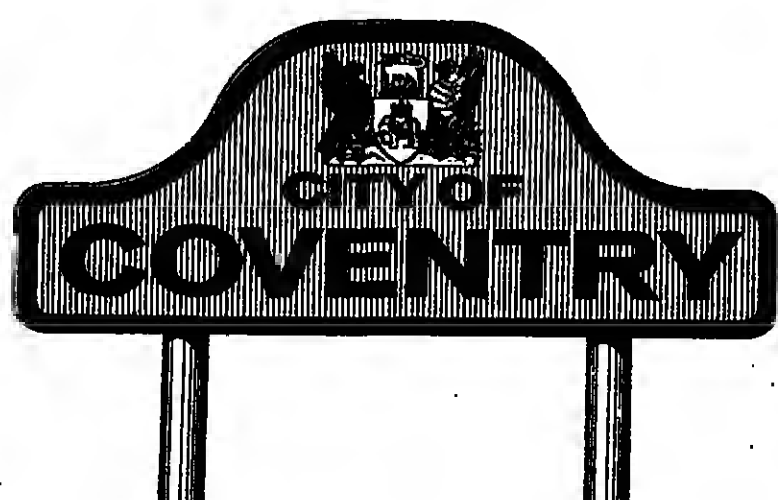
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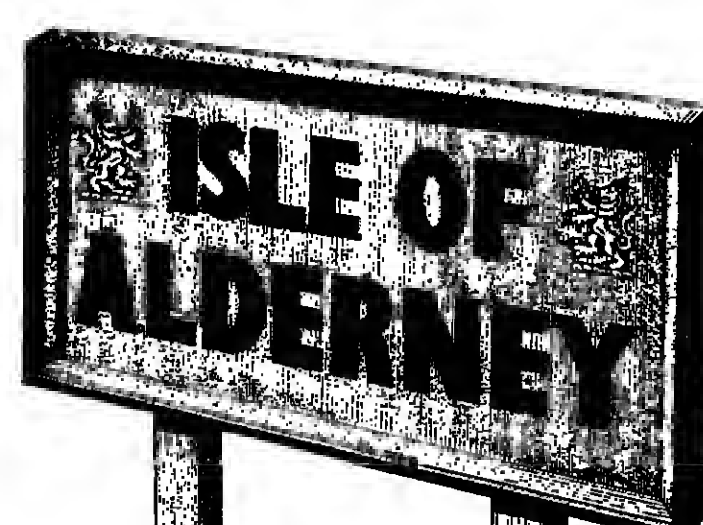
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Brymon Airways.



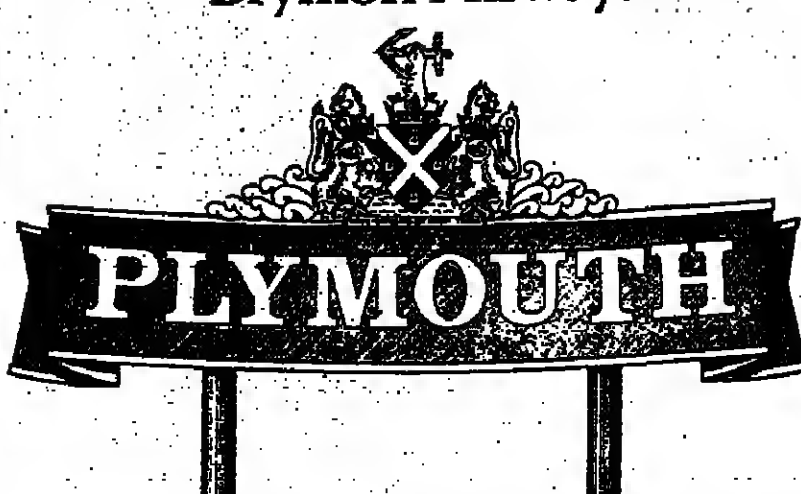
Metropolitan Airways.



Metropolitan Airways.



Brymon Airways.



Brymon Airways.

From now on, you can step straight on to an international airline at your local airport.

Because British Caledonian have linked up with Genair, Metropolitan, and Brymon, three major airlines that operate from the regional airports shown.

They will all connect directly with most of our international flights at London Gatwick.

We call it the Commuter Service. It means you can now buy an unrestricted all-in ticket, for example, Liverpool-Atlanta, for the same price as London Gatwick-Atlanta.

And instead of your trip starting by car or train, it starts with your

international airline.

Commuter Service aircraft enjoy all British Caledonian's landing, parking and baggage handling facilities at London Gatwick.

And for your domestic flight there's a special Commuter Service check-in.

Next time you have a business trip abroad, fly British Caledonian.

Get all the advantages of an international airline on your doorstep.

Without the international traffic.

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We never forget you have a choice.

Genair British Caledonian

COMMUTER AIRCRAFT IV

Lynton McLain reviews prospects in the UK and Western Europe and profiles some of the companies involved

Flexible control of services

PROFILE: GENAIR

Enjoying rapid growth

THE DEVELOPMENT of commuter and cross-border regional air operations in the UK and western Europe has been slower than in the U.S. There, they are an established form of transport for executives in a hurry and for all who want swift access to often isolated communities away from the main routes served by the major airlines.

Nevertheless, the potential in the UK and western Europe for these smaller scale airline operations is considerable, but is constrained, in the view of some operators in Britain, by the less-than-liberal attitudes of Continental governments to the provision of "regional" air services.

The UK Civil Aviation Authority and the Trade Department estimate that a total of 1,500 potential air routes exist under current bilateral agreements between governments in Europe. Only a relative handful of these routes have been taken up by operators.

The policy of the UK Government, a leading advocate of a more liberal regime for smaller airlines in Europe, is to support wherever possible the development of cross-border, regional, commuter-style air links, especially on non-trunk routes between smaller communities.

The government's broad aim is to have less stringent requirements for would-be operators and to try to remove the bureaucratic burden from smaller airlines.

Mr Iain Sproat, Parliamentary Under-Secretary of State at the Trade Department in London, went to Brussels, headquarters of the European Commission, in December to try to persuade his opposite numbers of the importance of accepting this more liberal approach to aviation in Europe. He made little progress, largely in the face of opposition from Denmark and Greece.

A further round of ministerial talks is to be held in June but there is no indication of any change of heart by Britain's partners in Europe.

Britain favours a measure of controlled liberalisation in the interpretation of bilateral air agreements. It does not want a revolution in the way air services are regulated, or total deregulation. Rather it favours an evolutionary approach to en-

courage the development of this "third-level" type of aviation in Europe.

In particular, Britain would like to see more development of less-popular routes by smaller, regional airlines, linking the industrial north and Midlands of Britain with the Continent.

At present, many of the services offered by the major scheduled airlines are based at the large, well-established airports. This has left regional airports with spare capacity and communities without regular air links with other industrial and business centres.

Reviews

In practical terms, the regulation of civil aviation in Britain is the subject of three separate reviews. The entire operations of the Civil Aviation Authority have been reviewed by the CAA following a request by Mr Sproat in July last year. The completed review was sent to the Trade Department in February this year, but no details have been published.

The second review, by the Trade Department, looked at the regulation of domestic air services.

This followed a visit by Mr Sproat to the U.S. The CAA compared the position on deregulation in Britain and the U.S. and discussed in a paper to the Secretary of State for Trade the scope for further liberalisation in Britain.

The CAA's own view of the need and prospect for change is that it is not against deregulation, but it believes that the room for deregulation and liberalisation is limited.

The regulation that the authority does apply to applications for new licences is limited to airline substitution, where one airline may wish to displace another, and to unnecessary duplication and capacity on routes.

The third inquiry into UK civil aviation was started by the Monopolies Commission in January when it began a review of air traffic control services.

One supporter of maintaining the status quo in the regulation of civil aviation in Britain is Mr Robin d'Erlanger, managing director of Metropolitan Airways, based at Bournemouth-Hurn Airport. He believes that the system as it stands is appropriate for Britain.

On the continent of Europe, the European Regional Airlines Organisation reported recently that its nine member airlines, from Germany, Austria, France, Switzerland and Sweden carried over half a million passengers and 650 tonnes of cargo last year.

The airlines, Aquair of Munich; Austrian Air Services of Vienna; Brit Air of Marseilles; Delta Air of Friedrichshafen; Flight Travel Service of Paderborn; Nuremberger Flugdienst of Nuremberg; Swedair of Stockholm and Tyrolean Airways of Innsbruck carried 588,700 passengers on more than 61,000 flights.

Ireland is another area where small regional airlines have developed to meet the needs of distant communities. Two of the country's regional carriers, Avair and Aer Arann, have recently been licensed to operate a series of new flights. Avair will fly from Dublin to Blackpool and East Midlands Airport near Derby, as well as from Cork to Jersey.

Aer Arann is to fly from Shannon to Belfast, Dublin to Manchester and to Cork as well as Cork to Belfast and Cardiff.

PROFILE: METROPOLITAN AIRWAYS

Capitalising on enthusiasm and personal links

THE Channel Islands, with their geographical isolation from the UK and mainland Europe, and their tax advantages, have spawned a number of small, regional airlines over the years. These include Alderney Air Ferries, the forerunner of the year-old Metropolitan Airways based at Bournemouth-Hurn Airport, the airline which took over Dan Air's "Link City" domestic routes last year.

Like many commuter and regional airlines, Alderney Air Ferries started life as the enthusiastic idea of one person with one aircraft. In this case it was Mr Ronald Ashley who founded the airline in July 1979 with an eight-seat Britten-Norman Islander for charter work to Bournemouth and Cher-

bourg. He acquired a second Islander in October 1980.

Mr Robin d'Erlanger, managing director of Metropolitan Airways, came into the regional airline business after qualifying as a chartered accountant in London. Flying was his hobby and he gained his commercial pilot's licence. After serving with Brynmor Airways in Plymouth he set up Air Westward in 1978-79 in association with Mr Peter Cadbury, former head of Westward Television.

The airline operated from Exeter to Gatwick, Glasgow, Paris and Amsterdam, before being taken over by Air UK.

Personal contacts mean a great deal in the entrepreneurial world of small airlines. It was through Mr David

Beety, a founder of the Caledonian Airways Group and now chairman of Metropolitan Airways, that Mr d'Erlanger met the founder of Alderney Air Ferries and was given the chance of taking over the airline.

By the end of 1980 he had turned the company into a regional airline with scheduled services between Bournemouth and Alderney, Cherbourg and Gatwick Airport.

Alderney Air Ferries already had the seeds of growth through its contact with Dan Air which handled the airline's aircraft, baggage and passengers at Bournemouth-Hurn Airport.

Dan Air operated scheduled services with 48-seat BAe 748 aircraft on its "Link City"

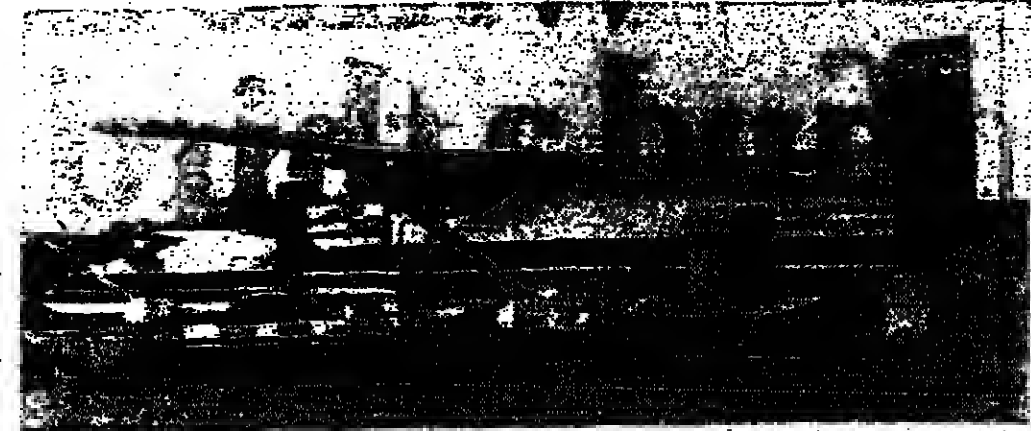
routes that connected Bournemouth with Cardiff, Manchester and Newcastle upon Tyne. The aircraft, however, proved too large for the market and typical local factors were about 45 per cent to 50 per cent of capacity.

The airline tried to economise by reducing its daily frequency to a twice a week service.

The burden of overheads Dan Air had to carry with its under-used aircraft on the routes forced the airline in early 1981 to propose giving up the routes.

Dan Air wanted to keep other services using Cardiff and Newcastle, but wanted a formula that would enable it to share its high overhead costs.

Alderney Air Ferries proposed operating Dan Air's "Link City" services using smaller, more economic aircraft



A Genair Short SD 360 for feeder services in British Caledonian colours

in Britain were based in Scotland and in the West Country. There were no commuter airlines in the North West.

Shortly after this first step towards commercial flying operations by General Relay, the management of Liverpool Airport, keen to encourage new services to London, asked the company if it would consider flying to Gatwick Airport with scheduled passenger services.

The two executives studied the commuter airline idea in the U.S. and launched the Liverpool to Gatwick scheduled air service, Genair's first, in August 1981, with an 18-seat British Embraer Bandeirante aircraft, operating two round trips a day. British Midland Airways continued to operate its Liverpool-

Gatwick services.

The Gatwick service was sufficiently successful for Genair to start additional services, linking Liverpool with Leeds and Amsterdam. The expansion encouraged the airline to consider plans for further expansion through the acquisition of other, smaller commuter airlines elsewhere in Britain.

By October last year, General Relay, as the owner of Genair, had acquired all the ordinary shareholding of Lease Air and of Casair Aviation Services. Lease Air traded as Eastern Airways based at Humberside and Casair was based on Teeside.

The acquisition resulted in the amalgamation of the three regional airlines, Genair,

Eastern Airways and Casair, under the name Genair.

The larger Genair started with a fleet of five Short SD-330 30-seat airliners, one Short SD-360 36-seat airliner—the third production aircraft—and four Embraer Bandeirante 18-seaters, of which three are for charter or sub-lease operations.

The new airline was the first in Britain to take delivery of the Short SD-360 airliner, the enlarged and more powerful version of the highly-successful SD-330 aircraft.

Shortly after the acquisition of Eastern Airways and Casair, Genair and British Caledonian Airways announced the formation of British Caledonian Commuter Services, in November 1982.

British Caledonian welcomed the development as a way of encouraging commuter air services to feed passengers into its base at Gatwick Airport.

Other airlines are associated with the scheme, but Genair was the first and from November the smaller airline started to operate its own aircraft in the new British Caledonian Commuter Services colour scheme. The plan is for the entire Genair fleet to be repainted in the British Caledonian Commuter Services colours.

In return, as well as aircraft and passenger handling and joint promotion and marketing, Genair's Gatwick services will be carried in British Caledonian's worldwide reservations system.

Genair has grown rapidly since it carried its first scheduled passengers.

Genair forecasts that it will carry 104,000 passengers this year, compared with the aggregate of 62,000 passengers carried by Genair, Eastern Airways and Casair before the merger. Turnover this year is expected to be £2m, based on a growing range of regional air services.

It's the bottom line that counts

A FINANCIAL TIMES SURVEY

AEROSPACE

The Financial Times is proposing to publish its annual survey entitled Aerospace on May 23, 1983.

Among the topics to be discussed will be:

- The Aero Engine Industry
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COMMUTER AIRCRAFT V

BIRMINGHAM EXECUTIVE AIRWAYS

Building on routes to Europe

BRITAIN'S NEWEST regional commuter airline, Birmingham Executive Airways, has risen phoenix-like out of the decision by British Airways to cease operations on four of its routes from Birmingham to major business centres in Europe.

These routes, from Birmingham to Milan, Zurich, Brussels and Copenhagen, were operated by British Airways with 90-seat BAC 1-11 twin jet airliners at low, uneconomic load factors.

The state-owned airline ceased operations on the Milan, Zurich and Brussels routes on March 24 last year and stopped operating the service to Copenhagen on March 26 this year.

The decision by British Airways to pull out of these routes came as part of a network-wide rationalisation programme which called for each route to be viable in its own right.

Only one of the routes was taken up. Immediately British Airways stopped operations, Birmingham Executive Airways took over the Birmingham to Brussels route with a direct, twice-daily scheduled service from April 1 last year, based on a 44-seat Fokker FV aircraft, which has four times the capacity of the BA aircraft.

Milan and Zurich remained unattractive choices for conventional airlines largely because of the low traffic densities and low load factors when operated with medium-sized airliners such as the BAC 1-11 and the DC-9.

The Birmingham to Milan route was operated daily during the week by British Airways from 1978. In 1981 a Sunday service was added and the passenger demand gave a load factor of 54 per cent. In the 12 months from November 1980 to October 1981, British Airways carried a total of about 15,150 passengers; half of these were full fare passengers.

Captain Trevor Jones, managing director of Birmingham Executive Airways, was interested primarily in the full-fare business traveller, which led him to make a break with Alldair, the company he joined in 1979 as chief pilot.

Alldair operated business routes from East Midlands airport to Edinburgh and Aberdeen and holiday flights in the summer months to the Channel Islands. Captain Jones favoured operations orientated towards the business traveller exclusively and he left Alldair in October 1982.

The British Airways figures for the routes were as follows:

has grown to 11 passengers. forecasts that by 1985, 62,000 passengers will be carried on the route. Eastern Air is before the year is up, based on a 94 regional air



Trevor Jones with Birmingham Executive's first BAC Jetstream 31, just delivered. The second aircraft is being delivered next month.

for its routes out of Birmingham showed that, typically, on the 1-11 flights to the Continent, only 50 of the 90 seats available would be taken and of these only between 20 and 25 were taken by passengers paying full fare. Captain Jones was convinced that these routes could be made profitable but only through the use of smaller aircraft, down-sized to the modest business market.

He favoured the British Aerospace Jetstream 31 two-turboprop executive aircraft with seats for 12 passengers. This, he felt, could be used to operate daily flights to Milan, Zurich and Copenhagen, with greater frequencies if the extra demand was there.

Informal talks were held with the Civil Aviation Authority and with West Midlands County Council. The council had invested £50m in a new passenger terminal at Birmingham Airport, to open in spring next year, and it did not want to lose any air links, least of all links with the European Community.

Captain Jones also approached local chambers of commerce, to sound out the idea of an air service for local business travellers. British Aerospace, keen to sell its Jetstream 31 aircraft, but anxious to know more about the proposed service, did its own research and found the idea viable.

The licences for Birmingham Executive Airways to operate the routes from the city to Milan, Zurich and Copenhagen were granted by the CAA on March 1, subject to the successful completion of a proposed share subscription scheme to finance the venture.

Captain Jones and his financial advisers and stockbrokers estimated that £850,000 would be needed to finance the airline. A total of 200,000 shares at £1 each were to be paid for by the founders of the airline with 300,000 shares on offer by subscription at £1.50 each.

Captain Jones exchanged letters of understanding with British Aerospace on November 23 last year and paid a non-refundable deposit with the manufacturer to secure delivery

in April and May this year. The two Jetstream aircraft are to be leased by Birmingham Executive Airways and the same, undisclosed terms are to be available for a third aircraft, if the airline takes up this option, by next spring.

Services from Birmingham to Milan and to Copenhagen are expected to start on April 28 this year and the service from Birmingham to Zurich on June 6.

The new Milan service is to start as a daily return service, Monday to Friday, with an outbound departure to leave Birmingham early in the morning, with the inbound flight returning to Birmingham at midday. After three months the service is to be increased to twice daily on Mondays and Fridays. Further increases in frequencies are also planned for the autumn.

The Birmingham to Zurich operation is also planned as a daily service Monday to Friday, as will the service to Copenhagen.

Total sales by the new airline in 1982-83 are forecast to be almost £2m, producing a loss after expenses of £221,000.

The airline has forecast that it will move into profitable operation in the second full year of operations, 1984-85, with an estimated pre-tax profit of £101,000 on total sales of £3.4m.

Losses of £6.1m in 1982 for operations in Scotland before the formation of the new division were brought down to £500,000 in the first year of operation. But passenger traffic, as in many parts of the world, fell too — in the Highlands Division's case by 15 per cent.

British Airways forecasts a profit this year which will be the first time in 40 years of flying in Scotland that it has been able to make money on these routes.

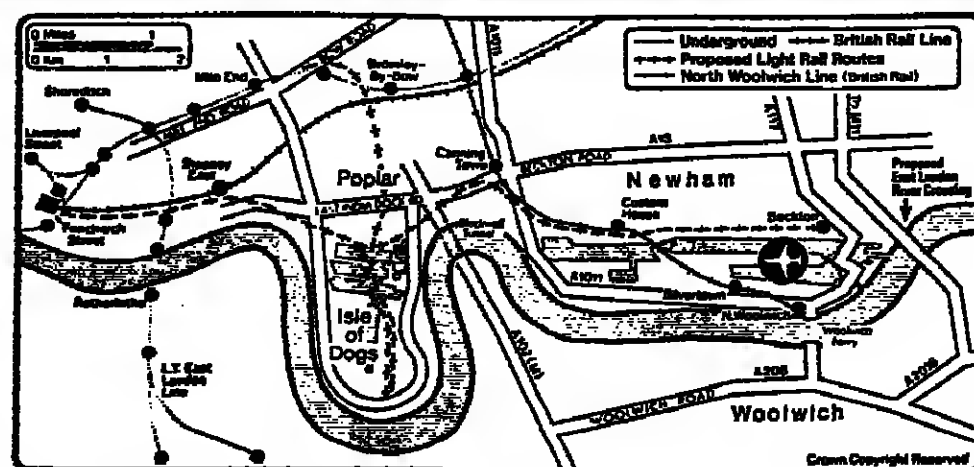
The traveller is still the business flier and families on the islands needing to fly to the mainland. The tourist is a prime target for British Airways marketing.

Loganair, a subsidiary of the Royal Bank of Scotland, flies a fleet of 16 small aircraft. It suffered a heavy blow with the loss of an oil charter contract last year which contributed to a £1m loss for 1982. It was the third consecutive loss faced by the airline in as many years. Seven aircraft were sold off

to reduce the financial burden. Improving the utilisation of aircraft. Money-making routes for Loganair have been its recently-acquired Edinburgh to Manchester and Glasgow to Belfast routes where passengers' response has been good. Other routes in Scotland such as the link between Lerwick in Shetland to Edinburgh operate profitably.

But some require Government subsidies. The Scottish Development Department underwrites £150,000 on a link between Glasgow, Trossachs and Barra, while the Western Isles Regional Council pays a similar amount to keep open an inter-island link between Stornoway, Benbecula and Barra.

The airline has opened negotiations with the Scottish Development Department and Strathclyde Regional Council for possible support on another loss-making route to Campbeltown in Kintyre. Air Ecosse, operating out of



Inquiry into Docks STOLport

ONE OF the most dramatic developments for commuter aviation in the UK now being planned is a STOLport (for Short Take-off and Landing aircraft) in the now disused Docklands area of Newham in East London.

This scheme has been proposed to the London Docklands Development Corporation by Brymon Airways, the commuter airline, in conjunction with the civil engineering group John Mowlem. The plan is now to be the subject of a public planning inquiry, the date of which has yet to be announced by the Secretary of State for the Environment, but is likely to be this summer.

In the meantime, Brymon has applied to the Civil Aviation Authority for permission to operate services to Paris, Brussels, Rotterdam, Amsterdam, Frankfurt, Manchester, Plymouth and the Channel Isles.

The plan is to site the proposed STOLport in the Royal Albert Dock and King George V Dock, both now disused. The nearest homes are some distance away, so that environmental nuisance from the quiet STOL aircraft which would be used is likely to be at a minimum.

The four-engined de Havilland Canada Dash Seven aircraft which Brymon proposes to use is so quiet that it is claimed that probably, few

people locally would notice. The majority of flights would be around breakfast time or early evening, and there would be no night flying.

The 50-seat Dash Seven can use a runway of less than 2,500 feet, flying at very low speeds and taking-off and landing at a comparatively steep angle. Demonstration flights with the aircraft were carried out successfully on a rough strip in the Docklands last summer.

These aircraft could also handle up to 100,000 tons of freight a year, and encourage industrial and commercial companies to move back into the area.

M.D.

Fitting services to the market



An Air Ecosse Short 360. The airline made a profit of just under £1m last year.

THREE AIRLINES ply the Scottish air routes from a base in Scotland and by and large it is an expensive business.

Two made losses from their operations in Scotland last year. The Government or regional councils paid £900,000 in subsidies to maintain socially important air links; the eight airports run by the Civil Aviation Authority in the Highlands and Islands required a subsidy from Government of £3.8m last year, while together the four larger airports of Aberdeen, Prestwick, Edinburgh and Glasgow made an accumulated loss of £3.5m.

The three—British Airways, Loganair and Air Ecosse—have tried to adjust their operations to the size of market to reduce costs. While significant increases in air traffic within Scotland

cannot be expected the losses are slowly being trimmed and even turned into profits.

British Airways, in a thorough shake-up of its operations in Scotland, formed its Highland Division in May of 1982. It took off its fuel-hungry large Viscounts, replacing them with five HS-748 aircraft with 44 seats—more suited to demand from the more remote areas.

Staff were cut from 622 to 124 and the airline concentrated on reducing losses on 10 routes. One route between Aberdeen and Inverness was dropped and the frequency of other routes trimmed.

It was clear from the start of this trimming exercise that British Airways would not seek subsidies on its routes or financial assistance on its running costs.

Aberdeen airport, is the exception among the three airlines. It makes a profit—just under £1m last year on its 12 routes.

The airline is a family firm, a subsidiary of the Fairlight Aviation and Engineering company of Biggin Hill, but is run independently by a small staff under Mr Paul Mulligan in Aberdeen.

Buying the right-sized plane for the route accounts partly for the airline's success. It expanded out of charter work with a fleet of Brazilian-built Bandeirante 15-seat aircraft. Today it has added two Short 3-60s with 36 seats and another smaller aircraft.

Air Ecosse routes between Aberdeen and Wick in the far north and between Aberdeen and Liverpool are among its best runs—but a new route soon to open connecting London Heathrow to Dundee could also be popular.

Mark Meredith

has grown to 11 passengers. forecasts that by 1985, 62,000 passengers will be carried on the route. Eastern Air is before the year is up, based on a 94 regional air

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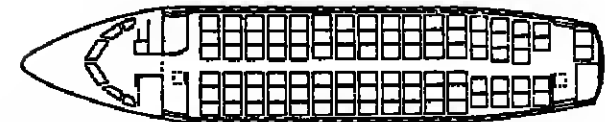
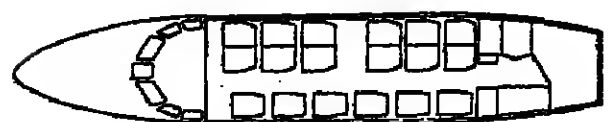
Unequalled
in its range of
regional
commuter
aircraft

No other company can respond to the growing needs of regional and commuter airlines throughout the world with the range of options offered by British Aerospace. Jet and turboprop aircraft now in production provide seating capacities from 16 to over 100 seats, with the passenger appeal and operating economy essential to build profitable traffic where other aircraft have failed, and further developments are in hand.

Jetstream 31 combines the amenities and comfort of a true airliner with the economy and structural integrity needed for successful high-frequency operation on short-haul commuter and feederline services between the smaller communities and urban airports. Powered by fuel-efficient turboprops, it has a roomy, walk-through, pressurized cabin capable of providing full in-flight services for up to 19 passengers.

748 has built profitable traffic on routes where other turboprop and jet airliners have proved uneconomic. It has won an unsurpassed record of reliability, averaging less than one maintenance man-hour per flying hour. With sales now at 360, production has been stepped up in response to increased demands occasioned by the 748's exceptional fuel economy and low operating costs. The new Super 748, which will become available in 1983, offers improved economy and comfort, and lower noise-levels at airports and in flight.

146 is the first jet airliner to be designed specifically to meet the needs of regional and commuter airlines through to the next century. Four new-technology, high-bypass-ratio turbofans give this 80/109-seat feederliner low operating costs, ultra-low noise-levels and exceptional short-field performance which ensure profitability, flexibility and community acceptance on short-haul routes serving urban airports and hot-and-high airfields.

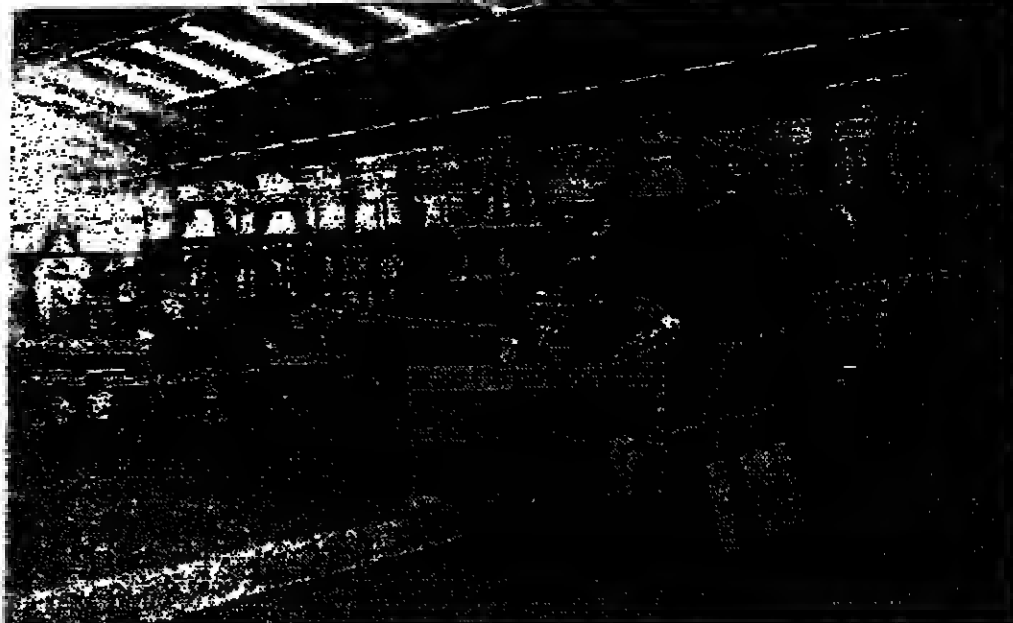
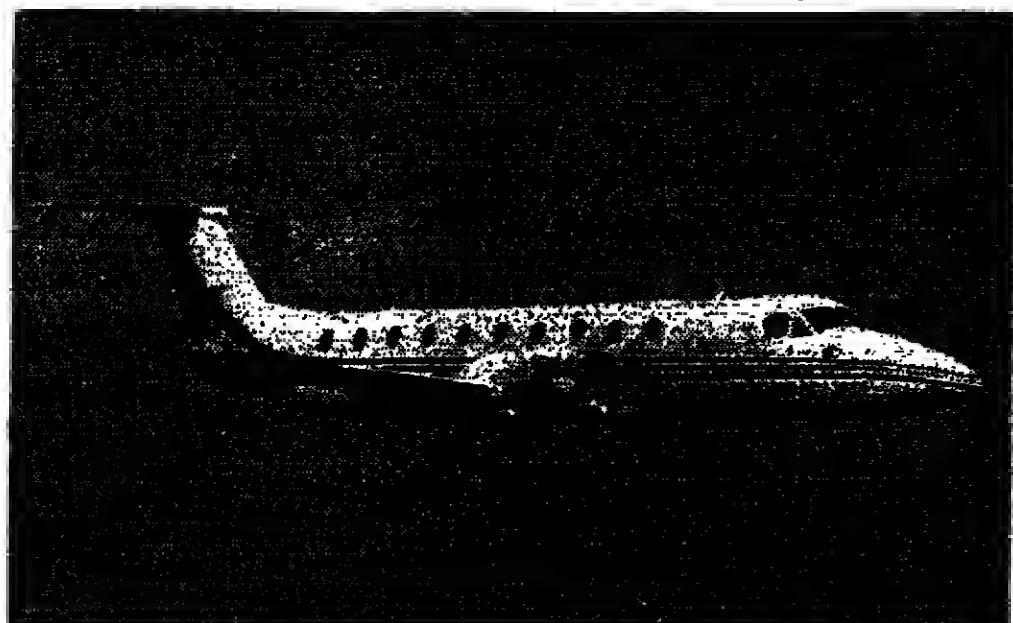
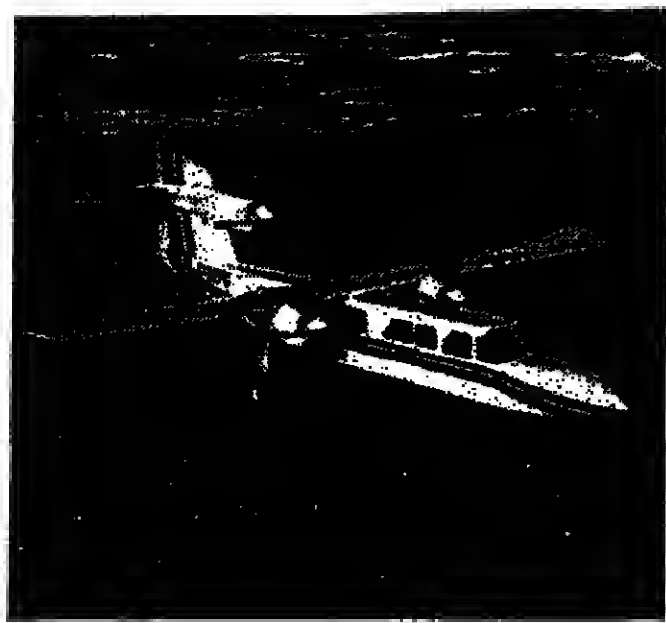


BRITISH AEROSPACE
unequalled in its range of aerospace programmes

British Aerospace PLC, Kingston-upon-Thames, England

COMMUTER AIRCRAFT VI

Manufacturers all over the world are producing an increasingly wide range of designs to win a share of this \$25bn market



The aircraft: four-seaters up to jets

THE INCREASING size of the "third-level" aviation market, with its anticipated scope eventually for sales of about 6,500 aircraft worth about \$25bn through the rest of this century, is attracting increasing attention from the manufacturers.

Already a wide variety of aircraft is available for commuter, regional or local-service operations, ranging in size from the smallest four to six seat cabin aircraft up to the 109-seat Series 200 version of the British Aerospace 146 regional four-engine jet airliner.

In addition, a range of new aircraft of various sizes is under development, mostly for delivery from next year, which will widen the choice for third-level operators to an unprecedented degree, in terms of size, range-payload capability and price.

All these aircraft have many features in common. Apart from a few exceptions (such as the four-engine BAE 146 jet), they are twin-engine turbopropeller powered aircraft, giving exceptional quietness compared with jets, and all can be used from comparatively rugged, undeveloped fields and strips as well as normal airport runways. The exceptional flexibility and low cost which this gives are the most desirable features of all commuter/regional/third-level aviation operations.

While some jets, and even

some helicopters, are used for commuter operations (the latter especially for some inter-city operations, again mostly in the U.S.) the higher costs of such aircraft tend to confine them to the specialist types of commuter operations, and most operators, especially the smaller ones, tend to prefer turboprops.

Nevertheless, the jets and helicopters are finding increasing roles in commuter/regional/third-level operations, and the tendency is to evolve designs with technological improvements designed to save weight and fuel, to bring down operating costs and in turn make them more attractive to the growing band of operators.

The major fixed-wing manufacturers involved include Beech, Cessna, Piper, Fairchild Swearingen and Gulfstream Aerospace of the U.S.; Embraer of Brazil; British Aerospace, Short Brothers and Pilatus of the UK; Fokker of Holland; de Havilland Aircraft of Canada; Aerospaciale of France; Aeritalia of Italy; Israel Aircraft Industries; Saab-Scania of Sweden (in conjunction with Fairchild); Dornier of West Germany; and CASA of Spain, in association with Nurtanio of Indonesia.

The helicopter manufacturers involved include Bell, Hughes, Sikorsky and Boeing Vertol of the U.S.; Agusta of Italy; Westland of the UK; and Messer-

schmitt-Bolkow-Blohm of West Germany. All of these manufacturers produce rotary-winged aircraft of various sizes which in one way or another can be used in commuter or third-level transport work.

In all, there are well over 50 different types of aircraft available from more than a score of separate manufacturers worldwide. While some of these are distinctly "airliners" in their own right, others are equally capable of being adapted to a wide range of other duties (and are frequently employed in those roles in many parts of the world).

Of all the types available, at the top end of the scale is the British Aerospace 146 short-range four-engine jet airliner. This is probably more accurately described as a "regional" airliner than a commuter type, since it is expected to be used in front-line scheduled airline service by many major operators.

Sales drive

Nevertheless, British Aerospace is aiming its sales drive worldwide at the largest possible market for short-haul air services of all kinds, especially in the U.S., Western Europe, the UK and Japan, and it believes that the range of uses for the 146 will be very wide, especially because of the aircraft's very short take-off

run. The 146 is being built in two versions: the Series 100, seating between 71 and 98 passengers, and the larger Series 200 seating between 82 and 109 passengers. Both versions are intended for use from rough, semi-prepared airstrips with minimum ground facilities, as well as from normal airfields with hard runways.

Quantity production is well under way at BAE's Hatfield, Hertfordshire, factory, and the first aircraft is due to enter service this spring. Production is being geared to a rate of three aircraft a month, and a major worldwide sales programme is already under way. Orders and options to date stand at 32 aircraft.

Also from the BAE stable, and equally suitable for commuter operations as well as a wide variety of other transport duties, are the BAe 748 twin-turboprop seating up to about 55 passengers (according to configuration desired), and the smaller 19-seat twin-turboprop BAe Jetstream 31, both of which are in full production. Looking beyond these, British Aerospace is now studying what is called the "Advanced Turboprop Transport" or ATP, based on the 748 but with an extended cabin to accommodate up to 64 passengers.

Also in the UK, Short Brothers of Belfast has already developed an airworthy position

in the world commuter aircraft market, with its 33-seat 380 twin-turboprop aircraft, and its more recent 36-seat 360. These aircraft have already resulted in Shorts being dubbed the "Seattle of the Commuter / Regional Aircraft Business"—showing that its expertise in that sector of the market stands in comparison with that of Boeing in the much bigger jet transport airliner market.

The 380 in particular is already well ahead of its rivals in the 35-seat category, and is already demonstrating its ability to make its operators money, following entry into service in the U.S. a few months ago. Other versions of these aircraft are available, notably the Sherpa, a civil freighter version of the 380, while a military tactical transport version is also on offer.

Shorts also continues to build its long-running Skyvan light transport, widely used throughout the world for cargo and general purpose duties in both civil and military roles, especially in the developing countries.

Another major light transport aircraft builder is the Swiss-owned, but UK-based, Pilatus Britten-Norman, which is active in the Isle of Wight building the Islander 10-seat twin-engine aircraft. Since production began in 1966-67, more than 1,000 aircraft have been delivered from Britten-Norman (as it was originally called before its takeover by Pilatus of Switzerland). These have included 806 Islanders, five of the new turbine-powered Islanders, 66 Defenders (the military version), 73 three-engine Trislanders. A substantial number of aircraft are either in production or on order, and the company believes that market prospects are good, especially in the Third World.

One of the world's biggest manufacturers of light transport aircraft is de Havilland Aircraft of Canada, the 30-seat, four-engine Dash Seven aircraft and its highly successful Twin Otter twin-engine 19-20 seater which, since 1966, has amassed more than 7m flying hours and an order book of

more than 800 aircraft.

The company's new addition to the range, the twin-engine Dash Eight, a 32-36-seat aircraft now under development, is due to make its maiden flight this summer with delivery to airlines beginning in 1984.

A feature of all the de Havilland Canada types is their exceptional Short Take-Off and Landing (STOL) performance which gives them a unique ability to operate from short, unprepared airstrips worldwide as well as from normal airports. This feature in particular has contributed to the success of the Twin Otter, now the world's best-selling light STOL transport aircraft.

Strong position

The Brazilian aircraft manufacturer, Embraer, has also established a strong position in the world's commuter and third-level airliner market with its 20-seat Bandeirante, of which more than 400 have been sold so far.

The company is now well ahead with the development and production of a new, larger, 30-seat twin-turboprop engine aircraft, the EMB-120 Brasília. This is expected to have its maiden flight this summer, with certification expected in 1984 and production deliveries to airlines starting in 1985.

By the end of February, Embraer held orders for more than 100 of this new-generation aircraft. Power plant for the Brasília will be the Pratt and Whitney (Canada) PW115, rated at 1,500 shaft horsepower. Development of this engine, in the PW100 series, is reported to be on schedule, with performance up to specification.

A feature of the growing commuter/regional/third-level aircraft market has been the emergence of international collaboration in the development of the new generation of aircraft involved. The British Aerospace 146 includes risk-sharing agreements with Avco Aerostructures of the U.S. for wing-boxes, and with Saab-Scania of Sweden for tailplanes and all movable control surfaces. This type of international collaboration has been carried

Far left the Pilatus Britten-Norman Trislander; centre, Beechcraft's 1900 airliner; and (above) 33-seat Brasília fuselages under construction at Embraer's plant in Brazil. The choice of aircraft for operators is widening to an unprecedented degree in terms of size, payload and price.

much further, however, in the emergence of joint ventures in both Western Europe and the U.S. Saab-Scania of Sweden and Fairchild of the U.S. are collaborating on the development of the 340, a 34-seat twin-turboprop airliner, described as the first truly "transatlantic manufacturing agreement" on a civil aircraft.

The 340 has already made its maiden flight and development flying is well under way at Saab's Linköping airfield, with Certification set for early 1984. By the end of February, orders and options for the AT-42 stood at well over 60 aircraft from 12 operators.

Elsewhere in Europe, Dornier of West Germany is delivering its Do-228 twin-engine aircraft, with an order book for over 100. Available in two versions, the Series 100 15-seater and Series 200 19-seater, the aircraft embodies much advanced technology, especially in its wing design. Dornier is believed to be considering plans for a new, larger version, of up to 30 seats, perhaps in collaboration with another manufacturer abroad.

CASA of Spain is working with Nurtanio of Indonesia on the development of the CN-235, a 35-seat twin-engine airliner which is being built both in Spain and in Indonesia, with deliveries to customers sche-

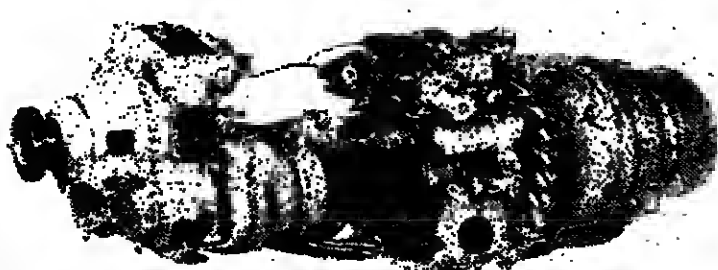
duled for the second half of 1984. In the U.S., Beech Cessna and Piper all offer a wide range of small, light transport aircraft, variously seating upwards of four passengers. Although aimed primarily at the business, executive and general aviation market, many of these aircraft are suitable for, and used by, the commuter operator, especially the twin turboprop aircraft seating upwards of six to eight passengers.

Such models include the Beechcraft King Air (up to 10 passengers), the Super King Air B-200 (up to 14), the Commuter C-440 (up to 15) and the more recently developed Cessna 441, seating up to 12. The wide variety of Cessna types available includes the twin-engine Conquest II, seating up to 11, while Piper also offers several types, including the Navajo, Chieftain and Chequester, seating up to eight, and the more recent T-1020 and T-1400 11-seater types.

Also in the U.S., the Commuter Aircraft Corporation is developing a 50-60-seat commuter airliner, the four-engine CAC-100 passenger and cargo transport, which is due to be rolled out this year, with deliveries to airlines in 1984.

Michael Domes

Pratt & Whitney's PW100 is the only new turboprop designed specifically for the new generation of 30-70 passenger commuter aircraft.



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Helicopter fleet expands

THE COMPARATIVELY late acceptance of the helicopter as a commuter vehicle stems entirely from the lack hitherto of rotary-winged aircraft with suitable operating costs. Developed specifically with this type of operation in mind, the earlier helicopters of the 1960s and 1970s tended to be derived from military types, and were expensive to use in a civil role, and many of the commuter-style operators that emerged in the U.S. in that period, even though subsidised by State aid, failed to survive. The fares they were obliged to charge the passengers proved too high, relative to the reliability of the service and the standards of comfort they could offer, despite the taxiable savings in time they provided.

This situation is now changing, and although the helicopter is still very much in a minority in terms of numbers compared with its fixed-wing counterparts, it is attracting increasing attention among commuter airline operators.

The primary market at present still appears to be in the provision of links either between city centres and airports, or between outlying urban areas (especially in well-to-do areas where there is a proportionately higher percentage of resident business travellers) and the airports, and especially where road congestion is often severe.

Congestion

The problem of road congestion, identified in cities as far apart as London, New York, Houston and Sydney is probably endemic to every big city in the world where international air communications are vital. In the UK, road congestion—so far only partially relieved by the construction of motorway links—led some time ago to the development of a direct inter-airport helicopter link between Heathrow and Gatwick for the benefit of connecting airline

passengers. In New York, British Airways provides a free helicopter service for its Concorde passengers between Kennedy Airport and Manhattan, while Pan American offers a free helicopter service between Kennedy and Manhattan for all its First Class and Clipper Class passengers.

While as yet there is no comparable regularly-scheduled city-centre to airport helicopter service in London for fixed-wing airline passengers, there is at least a floating "helicopter bridge" in the City which is sometimes used for such purposes, though the numbers of aircraft permitted to use it on any one day are restricted.

Although the principal factor which hitherto has restricted the use of helicopters in commuter-style operations has been the lack of suitable types of aircraft, there are other problems. One of these has been noise. The earlier generation of helicopters was undoubtedly exceptionally noisy and this has left a legacy among local authorities and communities of suspicion or outright hostility which is still a big stumbling block to helicopter commuter operations.

What is already acting as the catalyst for change, however, is the availability of quieter, more economic rotary-winged aircraft, in the shape of such types as the Sikorsky S76 from the U.S. and the more recently developed Westland 30 in the UK.

The Westland 30 is a 17-seat twin-turbine-engine aircraft, developed by Westland Helicopters of Yeovil. There are already about 30 orders and options for the machine and two have already entered service with British Airways Helicopters in oil and gas industry support operations in the North Sea.

This aircraft is expected to assume a true commuter role soon, when it enters service

with the Los Angeles-based helicopter airline, Airspur. That operator intends to put the six aircraft that it has on order into service on a network of high-frequency scheduled routes between Los Angeles and Fullerton and Los Angeles International Airport—a truly "commuter-style" operation between an urban area and a major domestic and international "hub" airport.

Watching

Considerable interest has already been expressed by other potential helicopter commuter operators in the U.S., and they will be watching the Airspur operation closely. Westland itself is hoping that, within a few months, the Airspur link will be repeated by others in many parts of the U.S.

Indeed, the manufacturer believes that during the rest of this decade it will be able to sell a large number of Westland 30s in this commuter role, although there are many other transport applications for the aircraft, for which sales are just

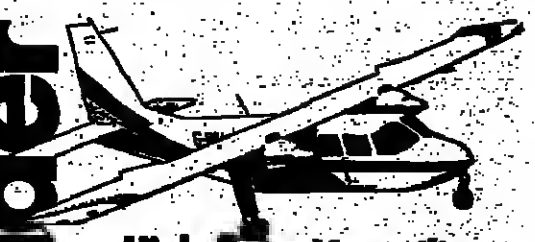
as assiduously being pursued. Particular emphasis is placed by Westland on the reliability of the Westland 30, stemming from the high mechanical integrity of its rotors and other new-generation features. The point is that the aircraft are essential all-weather machines, while the standards of comfort and being improved steadily.

Safety is equally important in its own right. A recent study by the U.S. National Transportation Safety Board showed that, over the past 10 years, U.S. helicopter accident rates had fallen fast, and are now little higher than those for fixed-wing aircraft.

Noise, as mentioned earlier, is still a problem in many communities, even in the U.S., while in the UK it has been a major factor in keeping down the levels of helicopter operations into and out of the London area, with a still comparatively high level of outright hostility towards the helicopter from local planning authorities and residents.

Michael Domes

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